TELSTRA 5G HOME MODEM USER GUIDE

IT'S HOW WE CONNECT

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1. INTRODUCTION

1.1. Getting to Know Your Telstra 5G Home Modem

The Telstra 5G Home Modem is an advanced gateway, providing high speed Wi-Fi and connectivity for a variety of residential and business devices. It can connect to the Internet using:

- Ethernet PPPoA/PPPoE link
- NBN™ (National Broadband Network) Fibre to the Premises

The Modem is also compatible with 5G mobile broadband device for peace of mind in case of an unlikely service interruption.

The Telstra 5G Home Modem features world leading Wi-Fi and the best connectivity available so you get the most out of your Telstra fixed Broadband service.

- Enjoy faster 5G Mobile WiFi with the latest 5G Mobile/Wi-Fi AX,AC technology
- Experience seamless dual-band connectivity of multiple devices on your network
- Make calls on your new business phone with Telstra's Digital Voice service
- Securely access your business files from home with our remote access feature

1.2. What's in the Box?

The Quick Start Guide outlines all the components that are included with the Telstra 5G Home Modem and can be found on Telstra.com using the following link: http://business.telstra.com.au/t5/DOT-Bundle-Help/ct-p/bundles_and_dot.

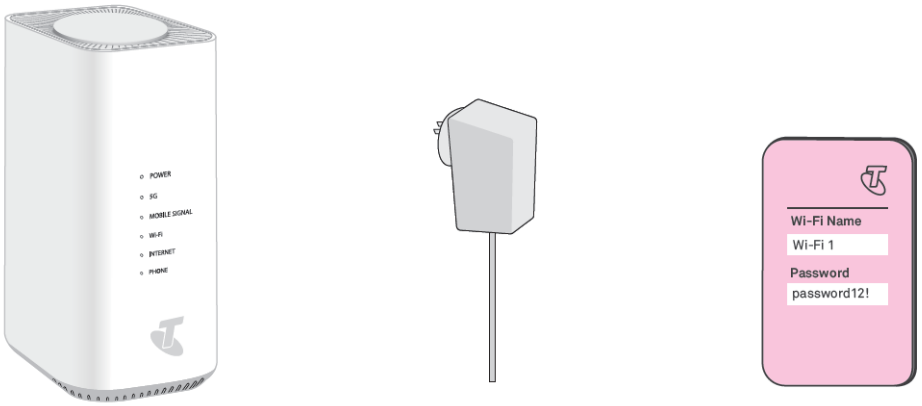


Figure 1: What's in the box?

1.3. Features and Benefits

1.3.1 Faster Wi-Fi with the Latest AX/AC Technology

The Telstra 5G Home Modem is a world leading gateway using the best Wi-Fi standard available, Wi-Fi 802.11 AX/AC, to maximize your Wi-Fi experience in the office. The Telstra 5G Home Modem also has 4 x 4 Wi-Fi streams to deliver the best possible coverage for your network.

1.3.2 Connect Multiple Devices via Dual-band Wi-Fi

This Modem enables connection of devices such as laptops, smart phones and tablets to the Internet via two separate Wi-Fi bands:

- 2.4GHz band for 802.11 B/G/N devices
- 5GHz band for 802.11 A/N/AC/AX devices

This allows you to spread your devices across both bands (depending on device compatibility) to make the best use of your Wi-Fi network coverage. The Wi-Fi Network Security Card provided with your Modem displays the Wi-Fi Network (SSID) Name for both the 2.4GHz and 5GHz bands. The Wireless Security Key (WPA Password) is also provided on this card.

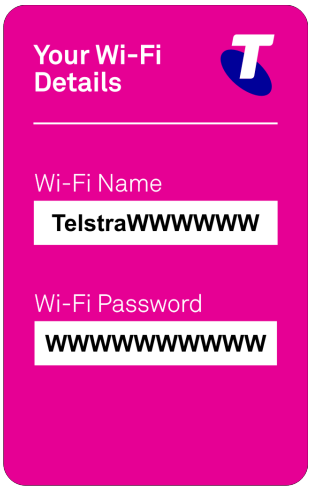


Figure 2: Wi-Fi Network Security Card

1.3.3 Make Phone Calls with Telstra's Digital Voice Service

Digital Office Technology (DOT) customers can use one of Telstra's IP Phones, compatible with this Modem, to deliver digital calls over the Fixed Broadband service. Telstra's Digital Voice service supports up to 10 services/lines at one site and provides a number of useful calling features to enable smart call management including:

- Fixed MessageBank
- Simultaneous and Sequential Ring
- Call Forwarding when not reachable
- Virtual Receptionist (Auto-attendant)

There are a number of compatible business IP phones to choose from including:

- Telstra T-Voice 502 DECT Phone
- Telstra T-Voice 503 DECT Phone

For more information about DOT Digital Voice services or the handsets outlined above refer to the following link: http://business.telstra.com.au/t5/Office-Business-Phones/ct-p/office_phones

1.3.4 Secure Remote Access Feature

The Modem's Remote Access feature enables secure access to your business files from home. Refer to the VPN plan available at: https://www.telstra.com.au/small-business/broadband/plans#adsl

- A static IP address is useful if you host a website from home, have a file server in your network, are using networked printers, are running a print server, or if you use a **remote access** program. Because a static IP address doesn't change, other devices always know exactly how to contact a device that uses one.

1.3.5 Always Connected with Telstra's Mobile Broadband 5G New Radio

The Mobile Broadband 5G NR (New Radio)/LTE back up feature provides piece of mind in case of an unlikely Fixed Broadband service interruption. This feature ensures that the Modem is always connected to the Internet via the Telstra Mobile Network 5G NR/LTE in the unlikely event that the Broadband service is unavailable. The Modem supports the use of a compatible Telstra Mobile Broadband 5G NR/LTE device providing SIM card slot on the back of the device.

1.4. Getting To Know the Modem

1.4.1 Understanding the Lights and What They Mean

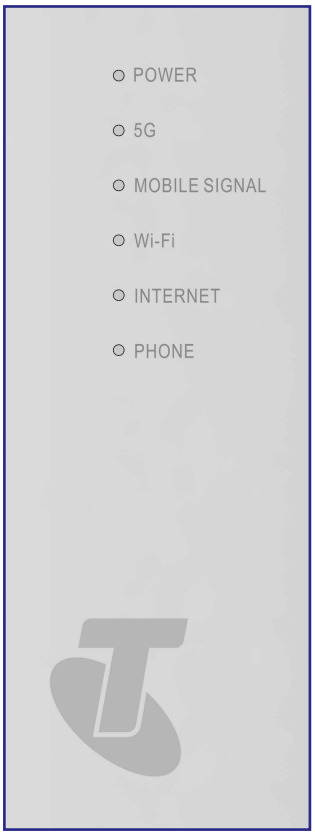


Figure 3: Telstra 5G Home Modem Front Panel

On the front of the 5G Home Modem there are six LEDs.

The meaning of the various light indication is listed in the following table:

Power		
○	No light	No power. Check modem is plugged in and switched on.
●	Green	Power is on.

5G		
○	No light	5G is unavailable.
●	Green	5G is available.

Mobile Signal		
○	No light	Modem is not connected to the mobile network.
●	Green	Good signal strength.
●	Blue	Average signal strength.
●	Red	Poor signal strength.
	Red Flashing	SIM failure.
	Blue Flashing	Network is connecting.

Wi-Fi		
○	No light	Wi-Fi is off.
●	Green	Wi-Fi is on.
	Green Flashing	WPS active.
	Green Flashing (fast)	WPS timeout/failure.

Internet		
○	No light	Modem is not connected to the internet.
●	Green	Modem is connected to the internet.

All LED (except power LED)		
○	No light	Modem is not connected to the internet.
	Slow Flashing Green	Modem firmware is being upgraded. Do NOT turn off the power to the modem.

Phone		
○	No light	Phone service not enabled.

1.4.2 Getting to Know the Back Panel

Figure 4: Telstra 5G Home Modem Back Panel

On the rear of the Modem there are 2 buttons and WAN/LAN LEDs.

In the diagram above there are a number of ports and buttons on the back of the Modem. These ports and buttons are described in the table below:

Back Panel Port Description	Description
MoCA port	Connect your fibre line to this port.
Wi-Fi button	2.4GHz and 5GHz status and configuration will be available in the WLAN control menu of the software user interface. Important Note: To switch Wi-Fi on or off, press the Wi-Fi button for at least 3 seconds. The Wi-Fi button LED will either switch on or off.
WPS button	WPS: Press this button to open a 2-minute window for the Modem to connect with other WPS-enabled devices.
Reset button	Using a paperclip to initiate the reset function. This will take the device back to default factory settings. Refer 5.4 for more detail.
SIM Slot	The Mobile Broadband backup. This embedded SIM card socket supports push-in/push-out mechanism. It is easy to insert and take out your SIM card by pressing the card into the slot.
WAN port	Connect your Ethernet PPPoA/PPPoE link to this port.
LAN (1-4) ports	Connect devices on your local area network to these ports (i.e., a PC, hub, or switch).
Phone port	Plug an analogue phone/device into this port when voice is enabled on the Modem.
USB 3.0 port	Plug a storage device to share on the network. This port supports USB hard drive formatted with HDD/Flash FAT32/NTFS 2T HDD.
Power Switch	Press this button to turn on/off the power.
Power Inlet	Plug the included power adapter to this inlet.

1.4.3 Product Label on the Bottom of the Modem

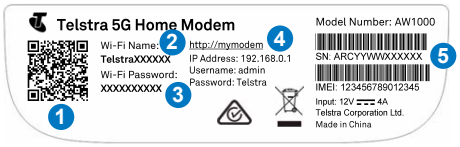


Figure 5: Telstra 5G Home Modem Label

You will find a number of important pieces of information on the product label on the bottom of the Modem including:

Label	Description
1. Wi-Fi Login QR Code	Scanning this QR code via your smart phone allows you to automatically connect to the Modem's Wi-Fi Network. It provides a safe and quick way of sharing access to your Wi-Fi Network without revealing network name and password.
2. Wi-Fi Name (Network Name)	Broadcast name for the Wi-Fi Network enabling you to connect your devices via Wi-Fi.
3. Wi-Fi Password (Network Key)	Password that authenticates the use of devices with the Modem's Wi-Fi Network.
4. Login Details	Enables you to access the Modem Control Panel to manage and customise your Modem settings. Please refer to Section 3 of this Guide for more detail on how to manage your Modem settings.
5. Serial Number	Number supplied by the manufacturer and vendor.

2. SETTING UP YOUR TELSTRA 5G HOME MODEM

The Quick Start Guide of Telstra 5G Home Modem provides a full set of instructions on how to set up your Modem. Please refer to the link below to access the Quick Start Guide at:
http://business.telstra.com.au/t5/DOT-Bundle-Help/ct-p/bundles_and_dot

This section will provide detailed information on setting up your Modem for a variety of internet connection types.

Important Note:	Place your Telstra 5G Home Modem vertically on a surface in a central location to your other Wi-Fi devices to optimize Wi-Fi performance.

2.1. Placement Method for the Modem

The Modem's location can affect wireless connections. For best results, place your Modem:

- Near an AC power outlet, close to computers you plan to connect with Ethernet cables, and near locations where you use wireless computers.
- In an elevated location, keeping the number of walls and ceilings between the Modem and your wireless computers to a minimum.
- Away from electrical devices that are potential sources of interference, such as ceiling fans, security systems, microwaves, or the base for a cordless phone.
- Do not place the modem in the location with direct sunlight.
- Do not stack the modem with the other device. Heat will be acuminated and then cause component damaged from overheat.
- Provide an adequate ventilation for the modem. To place the modem in a hermetic space will not only impact Wi-Fi performance but also cause damage due to thermal impact.
- Do not place the modem in a horizontal position as it will impact the air flow.

2.2. Setting Up Your Modem with an NBN™ Box (Fibre to the Premises)

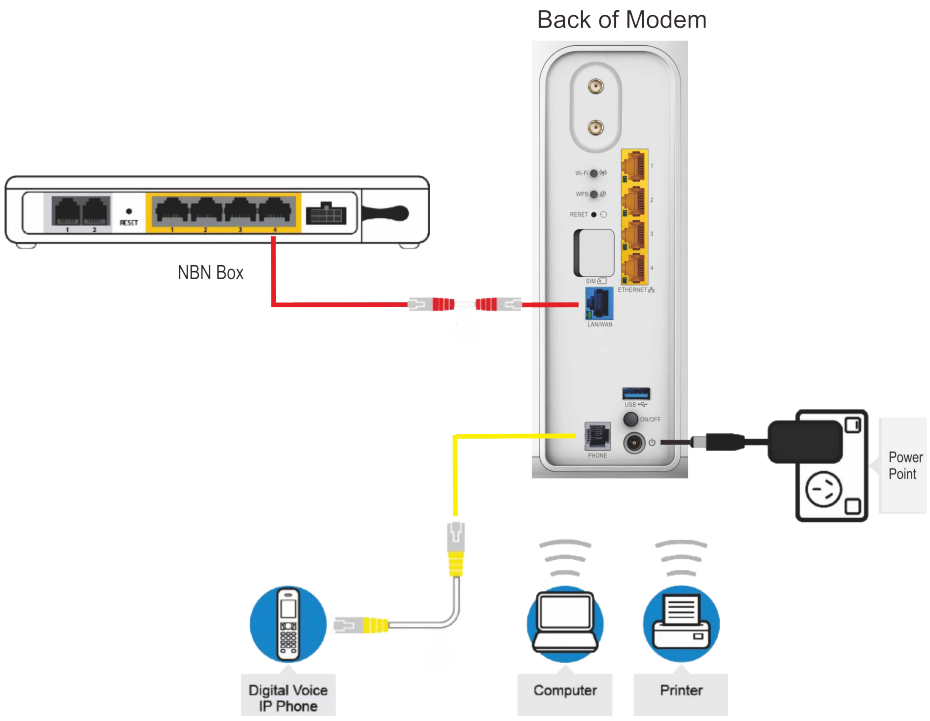


Figure 6: Telstra 5G Home Modem Setup for NBN (FTTP)

If you do have an NBN box at your premises you will have an NBN Fibre to the Premises (FTTP) connection. You will need a copy of your order completion email and your Wi-Fi Network Security Card to get started.

Your Modem can be set up in 3 easy steps:

Step 1: Connect the cables as in Figure 6.

Step 2: Connect your devices to the Modem, either using an Ethernet cable or via Wi-Fi.

How to:	Your Wi-Fi Network Security card contains the Network names and Network Key to connect your devices to both the 2.4GHz and 5GHz bands.

Step 3: Activate your Internet service and voice service using the web configuration interface.

How to:	The web configuration interface can be accessed by either Ethernet or Wi-Fi by typing the Telstra default IP address, **http://192.168.0.1** or **http://mymodem**, into your preferred browser. This will start the configuration interface and you can follow the screens and prompts to complete.

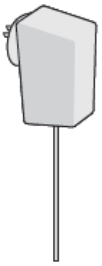
For more detail on the configuration screens refer to Section 3 on page 14 of this Guide.

2.3. Telstra 5G Home Modem Quick Start Guide

The Telstra 5G Home Modem Quick Start Guide provides a full set of instructions on how to set up your Modem. Please refer to the link below to access the Telstra 5G Home Modem Quick Start Guide: https://www.telstra.com.au/small-business/bundles/dot

Included in your modem package

Telstra 5G Home Modem



Power adaptor

Wi-Fi fridge magnet

Find the best location for 5G reception

Take note of the following points to help you find the right location for your modem to get the best 5G reception.

Good location

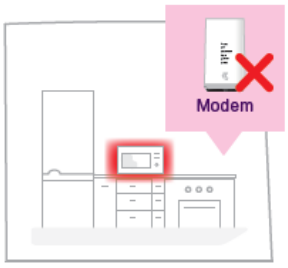
✓ Choose an indoor location as close to a window as possible.

✓ Place your modem on a table or other surface that keeps it off the floor.

✓ Make sure your modem sits within reach of a mains power outlet (240V standard power point).

Bad location

✗ Do not place your modem in a cupboard, on the floor, or in the middle of your house.

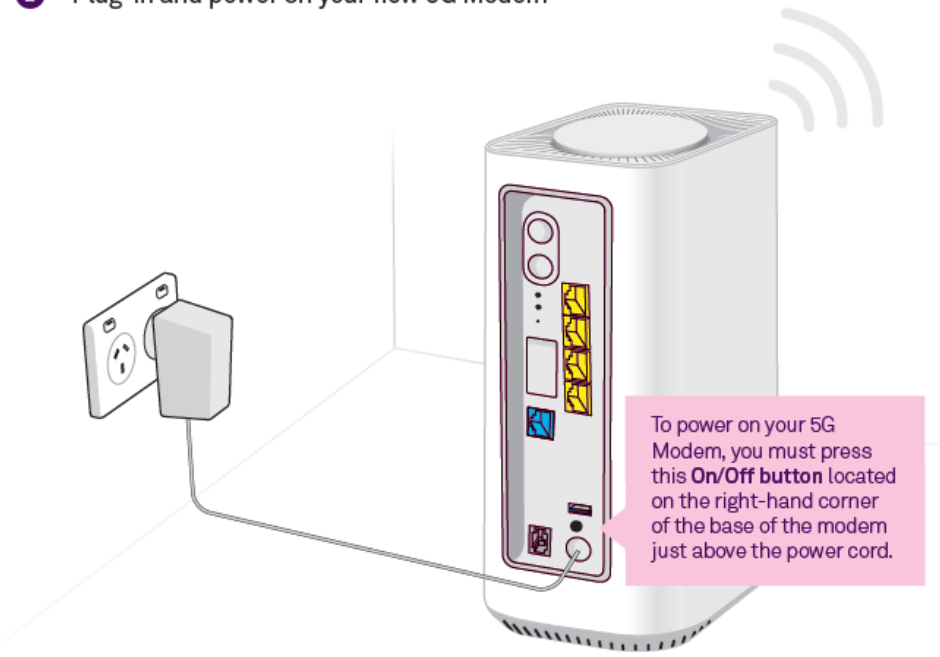


✗ Do not place your modem near water.

✗ Do not place your modem near electronic devices (TV, stereo, refrigerator, microwave). Place at least 3m away to avoid electrical interference.

Plug-in and power on

1. Unplug your nbn™ modem
2. Plug-in and power on your new 5G Modem


To power on your 5G Modem, you must press this **On/Off button** located on the right-hand corner of the base of the modem just above the power cord.

2.4. Connecting via Wi-Fi

The Telstra 5G Home Modem is delivered with Wi-Fi turned on with a unique Wi-Fi ID and WPA2 Key (Password). The ID, also known as SSID, and the WPA2 Key, are available on a fridge magnet card provided in the packaging. Use this information to connect your Wi-Fi enabled devices.

2.5. Connecting via WPS

Wireless Protected Setup (WPS) allows you to connect your network devices such as PCs, printers and mobile devices wirelessly without using a password.

To connect using WPS, hold down the WPS button on the Modem for 4 seconds. This temporarily enables WPS access. Next, enable WPS on your network device (such as your printer). The device will connect to the network allowing access to your Wi-Fi network.

3. CONFIGURATION OF TELSTRA 5G HOME MODEM SETTINGS

You may need to setup or reconfigure your Telstra 5G Home Modem, for example when moving premises, connecting to a new internet service, or after a factory reset. The Telstra 5G Home Modem can be configured manually through the Control Panel Graphical User Interface (GUI).

In this section, step by step instructions are provided for the Control Panel GUI of setting up the Modem. The Control Panel (GUI) is a site that allows you to manage and customize Modem settings and features.

3.1. Configuring Telstra 5G Home Modem Using the Control Panel (GUI)

The Modem Control Panel can be accessed through your internet browser via an Ethernet or Wi-Fi connection using the Telstra default IP address **192.168.0.1** or by loading the default IP address **http://mymodem**. This will bring up the Login screen and from here you will be able to configure the Telstra Modem to meet your requirements.

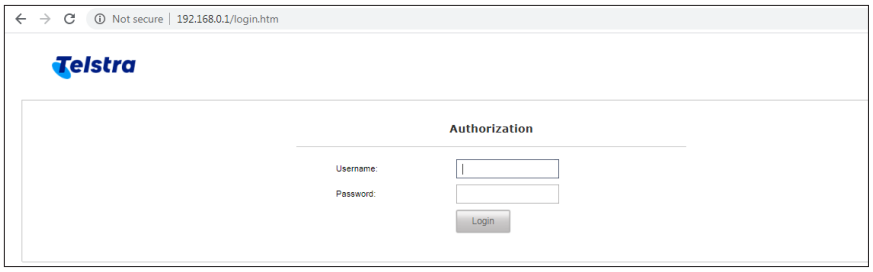


Figure 7: Modem Control Panel Login

To access the Control Panel you need to login with the following details:

- Username: admin
- Password: Telstra

Then click **Login**.

Login ID and password can contain from 3~12 alphanumeric characters and are case sensitive.

3.2. Management Panel

The 5G Home Modem's management interface consists of 5 main sections as shown below.

- Overview
- Network
- WLAN
- USB
- Administration
- Logout - click this icon to log out of the management interface.

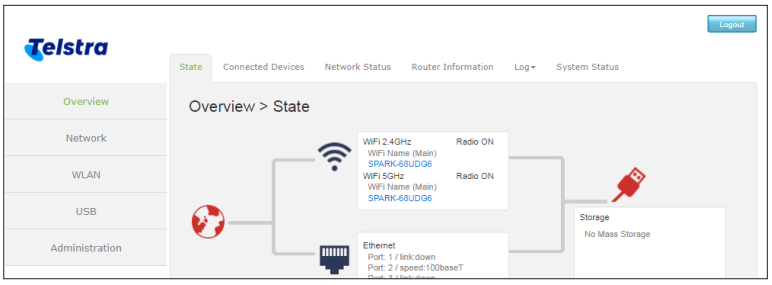


Figure 8: Management Menu

3.2.1 Overview

3.2.1.1 State

The first item of the Overview menu is State.

The State screen displays device information and Internet/Wireless/LAN connection status connected to your network.

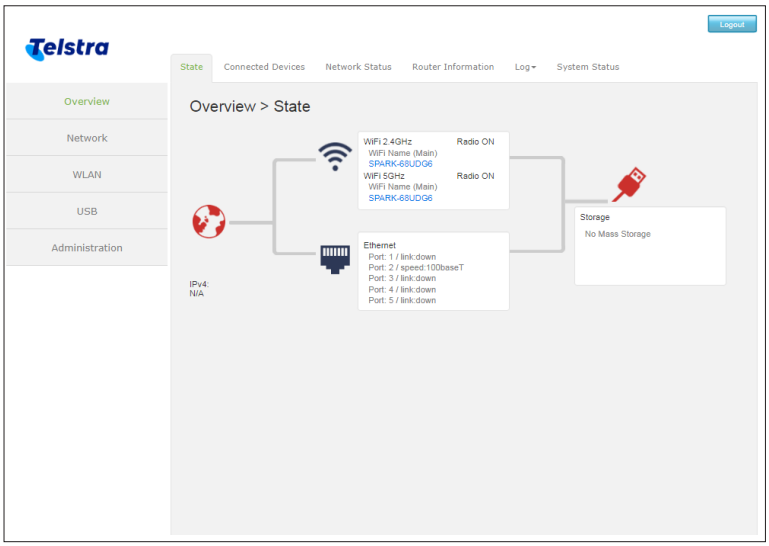


Figure 9: Overview/State

3.2.1.2 Connected Device

The connection status is displayed as the following screen.

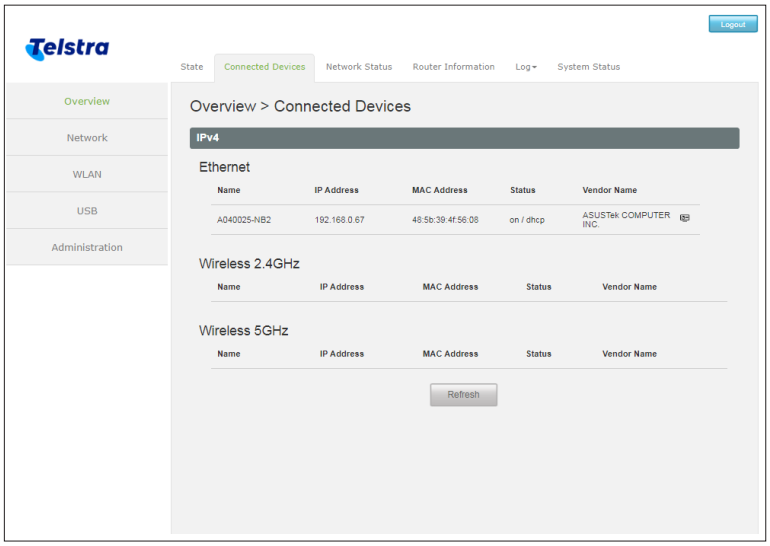


Figure 10: Overview/Connected Device

3.2.1.3 Network Status

The network status provides information of WAN connection type and status, and the mobile/wireless interface information. It also displays the physical MAC address, DHCP and firewall information for LAN connection.

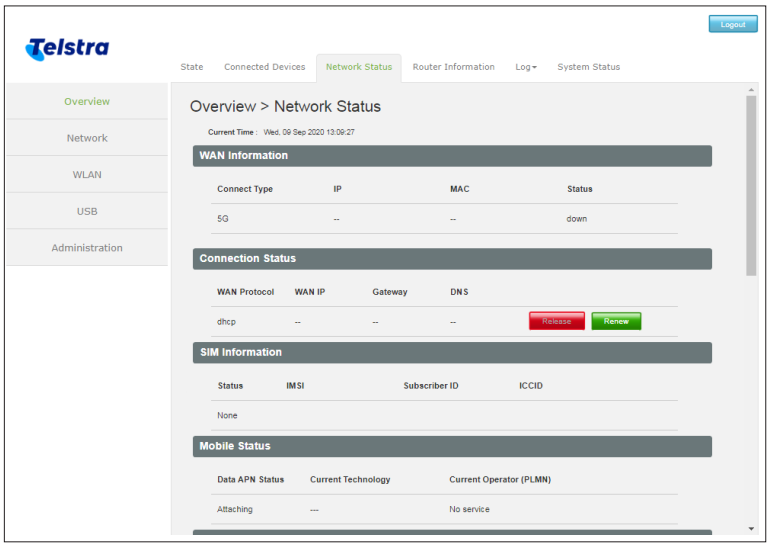


Figure 11: Network Status-1

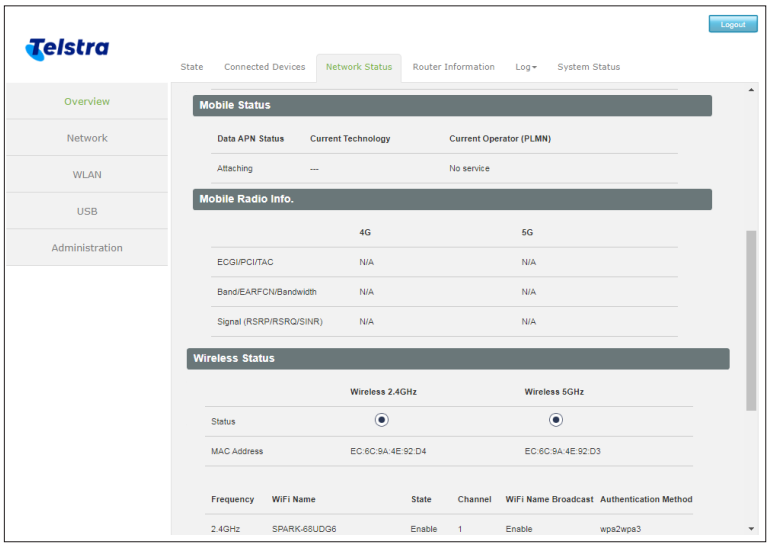


Figure 12: Network Status-2

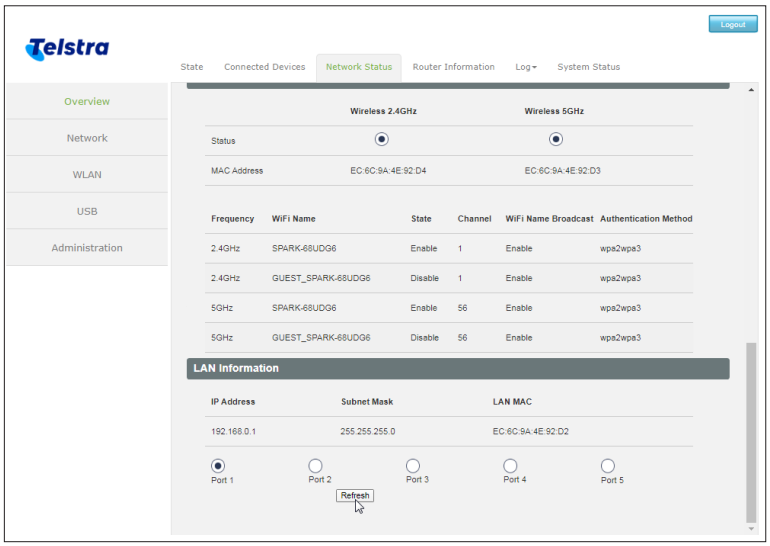


Figure 13: Network Status-3

3.2.1.4 Router Information

The Router Information of the Overview section shows information on firmware and hardware version numbers, and Mobile status of your network.

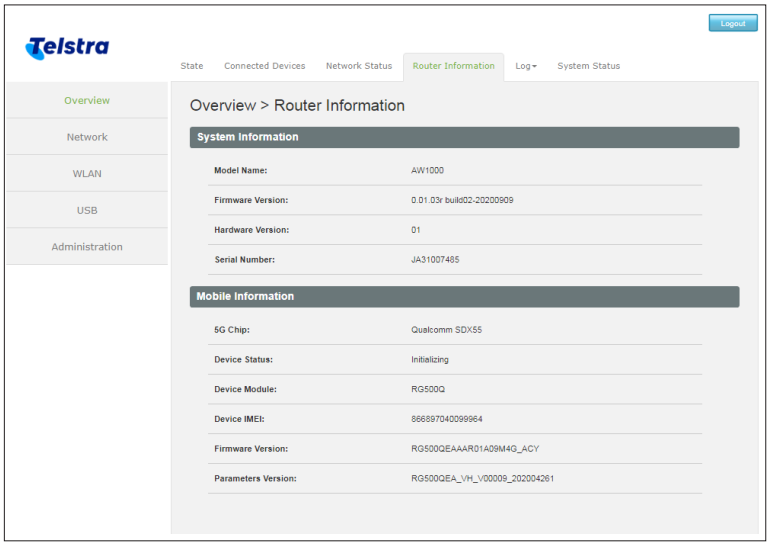


Figure 14: Router Information

3.2.1.5 Log

System Log

The System Log configuration allows you to set the display category for monitoring the system activity.

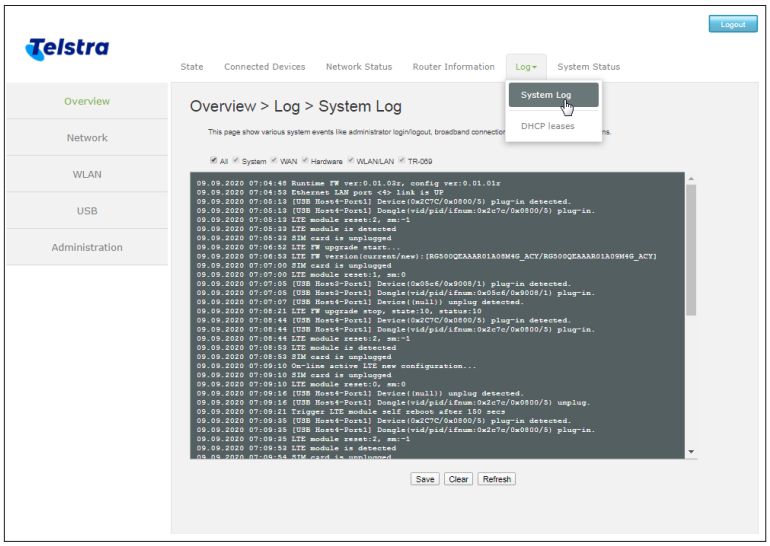


Figure 15: System Log

You can view the event logs on this screen. The system log may be saved to a file by clicking Save button to save the file.

DHCP leases

This table displays the list of DHCP clients connected to the Wi-Fi service and LAN DHCP Server, and to whom DHCP Server has given leases.

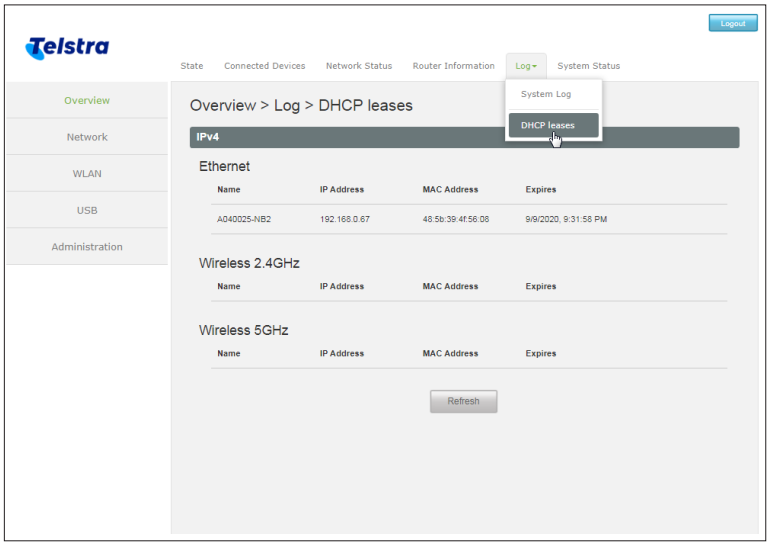


Figure 16: DHCP leases

3.2.1.6 System Status

This feature displays a quick view of system uptime, memory and CPU utilization statistics on the Modem.

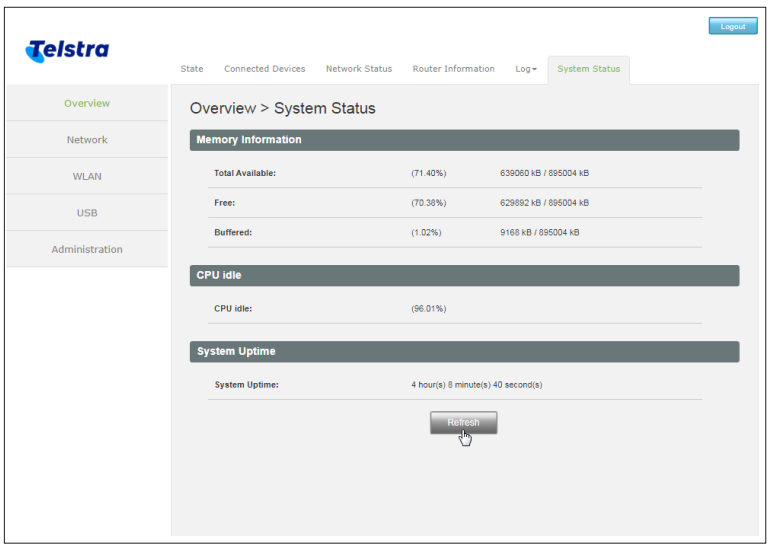


Figure 17: System Status

3.2.2 Network

3.2.2.1 LAN

The LAN settings screen allows you to change the default IP address of the Modem and the settings of DHCP server.

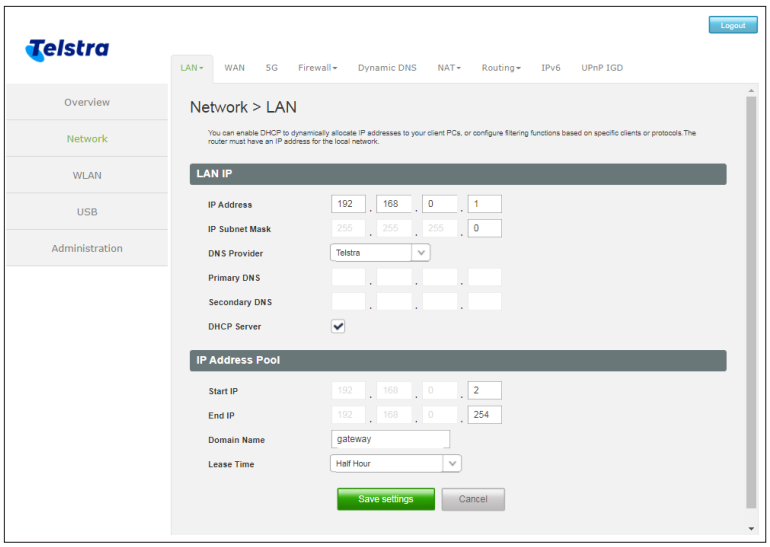


Figure 18: LAN Settings

Parameter	Description
LAN IP	
IP Address	The IP address of the 5G Home Modem.
IP Subnet Mask	The subnet mask of the 5G Home Modem.
DNS IP Address	Most ISPs provide a DNS (Domain Name Server) for speed and convenience. Since your Service Provider may connect to the Internet with dynamic IP settings, it is likely that the DNS service IP's are also provided dynamically. Then, select Automatically. If there is a DNS service that you would rather use, you need to select Manual and specify the IP address in the Primary/Secondary DNS field.
Primary DNS	Enter the primary DNS IP address.
Secondary DNS	Enter the secondary DNS IP address.
DHCP Server	By default, the Modem will function as a DHCP (Dynamic Host Configuration Protocol) server, providing TCP/IP configuration to computers connected to the LAN network. This option allows you to enable or disable the DHCP server function. By default DHCP is enabled.
IP Address Pool	
Start IP	Specify the start IP address of the DHCP pool. Do not include the gateway address of the Modem in the client address pool. If you change the pool range, make sure the first three octets match the gateway's IP address, i.e., 192.168.0.xxx.
End IP	Specify the end IP address of the DHCP pool.
Domain Name	If your network uses a domain name, enter it here. Otherwise, leave this field blank.
Lease Time	Allows you to select a pre-defined lease time for IP addresses assigned by the DHCP server. For home networks this may be set to Forever, which means there is no time limit on the IP address lease.

- Click Save settings to save your changes.
- Click Cancel to revert to the previous settings.

IMPORTANT: If you change the LAN IP address of the Modem, the browser will not respond when you click Save settings to save the changes. You must use the new LAN IP address.

LAN DHCP

The Modem's DHCP server can assign TCP/IP configurations to computers in the LAN explicitly by adding client's network interface hardware address and the IP address to be assigned to that client in DHCP server's database. Whenever DHCP server receives a request from client, hardware address of that client is compared with the hardware address list present in the database, if an IP address is already assigned to that computer or device in the database , the customized IP address is configured otherwise an IP address is assigned to the client automatically from the DHCP pool.

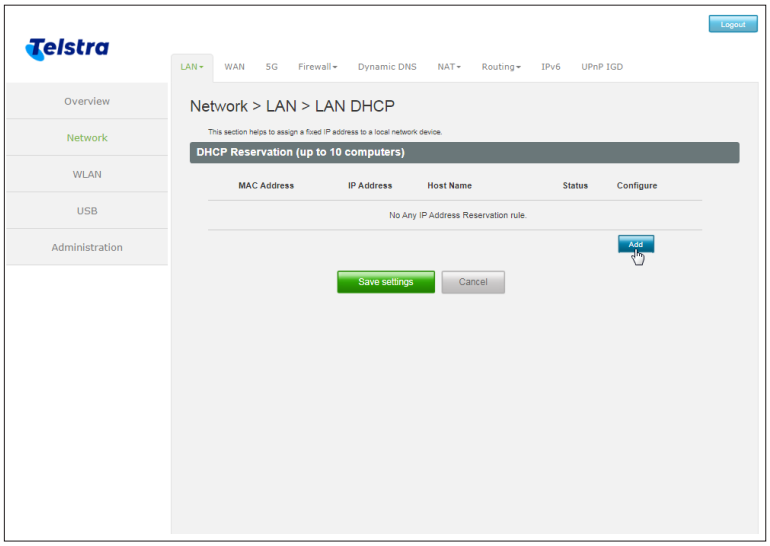


Figure 19: LAN DHCP

This table displays list of reserved IPs configured.

Click Add button on the screen. The DHCP Reservation screen will appear.

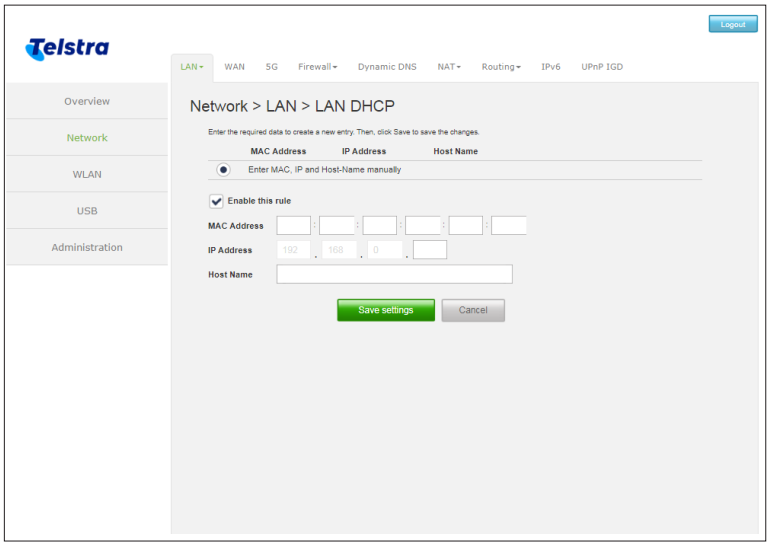


Figure 20: DHCP Reservation

Parameter	Description
MAC Address	The MAC address that will be assigned the reserved IP address when it is on the LAN.
IP Address	The LAN IP address of a host that is reserved by the DHCP server.
Host Name	The hostname that will be assigned to the Reserved IP address when it is on the LAN.

3.2.2.2 WAN Mode

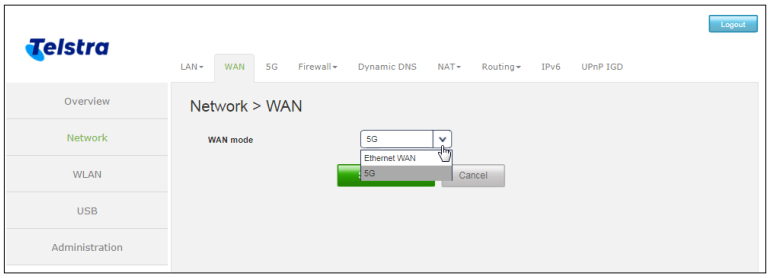


Figure 21: WAN Mode

- Mode: select the connection type of the WAN interface.

WAN Mode_Ethernet

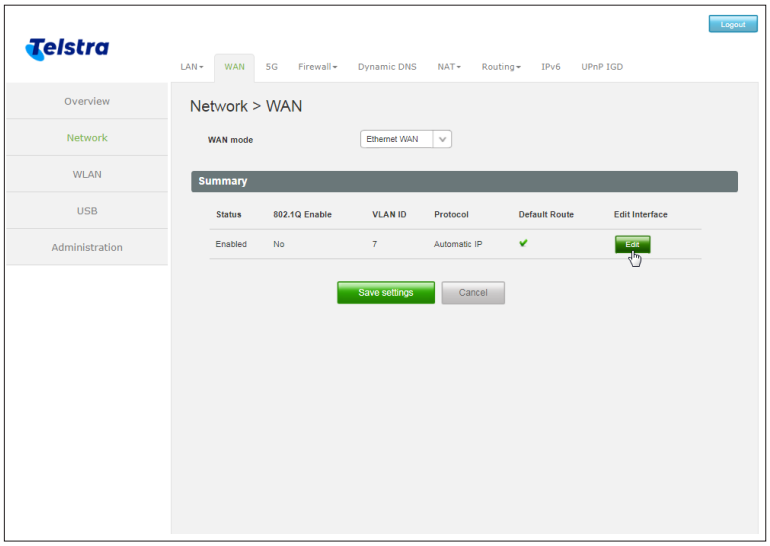


Figure 22: WAN Mode_Ethernet

The above screen displays a quick view on connection line status, IEEE 802.1q setting, the current WAN number, the protocol used by your ISP and default route setting status.

Click the Edit icon on the screen. The WAN Settings screen will appear.

WAN Settings

- WAN ConnectionType: select the connection type of the WAN interface.
- Enable WAN: enabling this function to use the WAN service.
- Default Route: the Modem will automatically assign the WAN port to the WAN number of VLAN port trunking.

Dynamic IP

Dynamic IP (DHCP server) responds to the request of IP address assignment, and offers an IP address for establishing the WAN link.

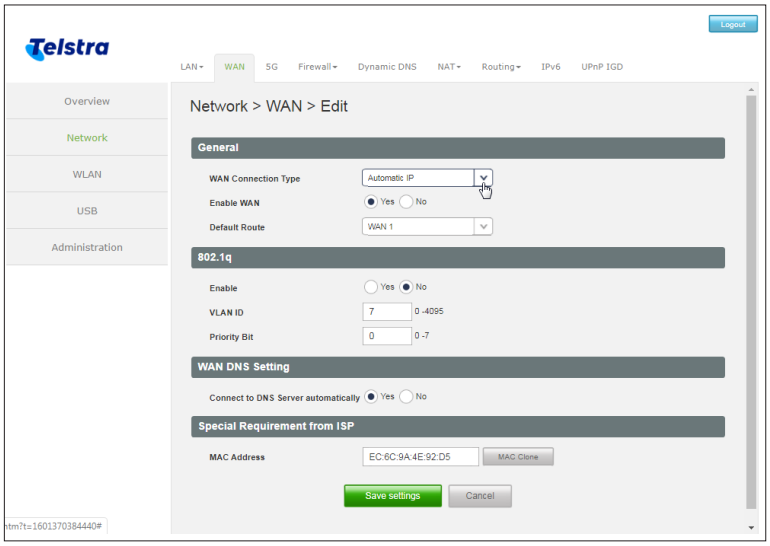


Figure 23: Dynamic IP

Parameter	Description
802.1q	
Enable	Select to enable VLAN
VLAN ID	Specify the VLAN grouping ID for WAN port binding.
Priority Bit	Set the QoS priority value of the VLAN ID.
WAN DNS Setting	If your Internet Service Provider (ISP) connects to the Internet with dynamic IP settings, it is likely that the DNS service IP's are also provided dynamically. Then, select Yes for dynamic DNS IP address.
MAC Address	The MAC address that will be assigned the reserved IP address when it is on the LAN.

PPPoE

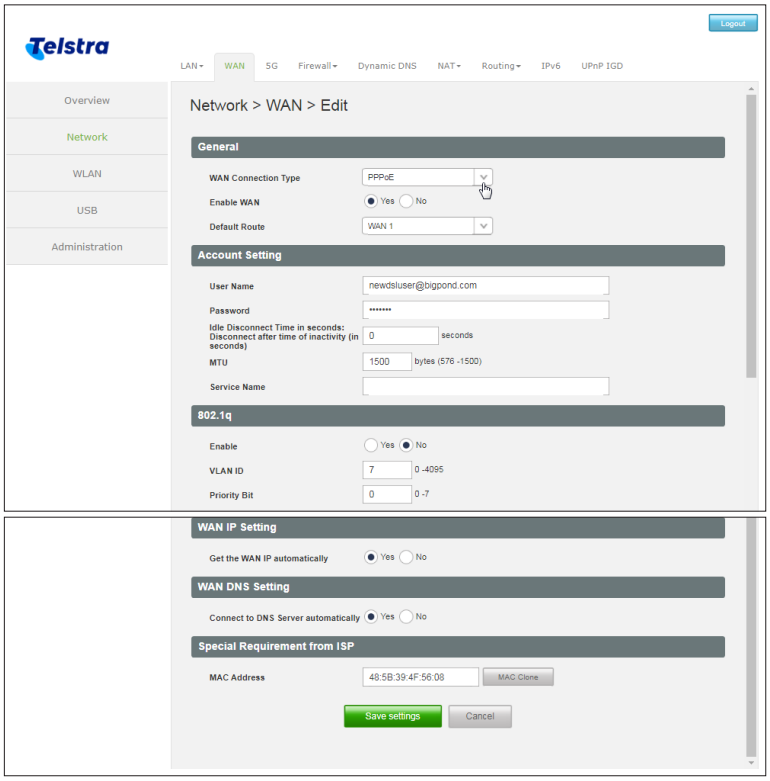


Figure 24: PPPoE

Parameter	Description
Account Seting	
User name	Enter user name.
Password	Enter password.
Idle Disconnect Time in seconds	Enter the maximum idle time for the Internet connection. After this time has been exceeded the connection will be terminated.
MTU	Leave the Maximum Transmission Unit (MTU) at the default value.
Service Name	Enter the service name for the authentication if required
802.1q	
Enable	Select to enable VLAN
VLAN ID	Specify the VLAN grouping ID for WAN port binding.
Priority Bit	Set the QoS priority value of the VLAN ID.
WAN IP Setting	Select Yes if your ISP automatically assigns the IP address.
WAN DNS Setting	If your ISP connects to the Internet with dynamic IP settings, it is likely that the DNS service IP's are also provided dynamically. Then, select Yes for dynamic DNS IP address.
MAC Address	The MAC address that will be assigned the reserved IP address when it is on the LAN.

Static IP

If your ISP provides you with the static IP information. Then enter the static IP address, IP subnet mask, and default gateway address as shown on the screen.

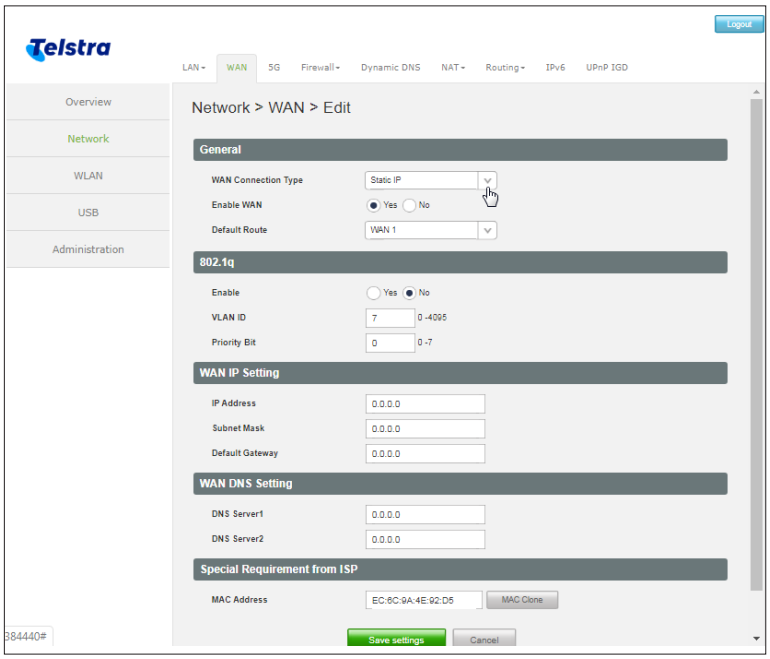


Figure 25: Static IP

Parameter	Description
802.1q	
Enable	Select to enable VLAN
VLAN ID	Specify the VLAN grouping ID for WAN port binding.
Priority Bit	Set the QoS priority value of the VLAN ID.
WAN IP Setting	
IP Address	Enter the IP address provided by your ISP.
Subnet Mask	Enter the subnet mask address provided by your ISP.
Default Gateway	Enter the gateway address provided by your ISP. For dynamic IP leave this field blank.
WAN DNS Setting	
DNS Server 1 DNS Server 2	Enter the DNS IP address provided by your ISP.
MAC Address	The MAC address that will be assigned the reserved IP address when it is on the LAN.

Bridge

In Bridge mode the Modem will act as a bridge passing the IP addressing directly to the attached client PC.

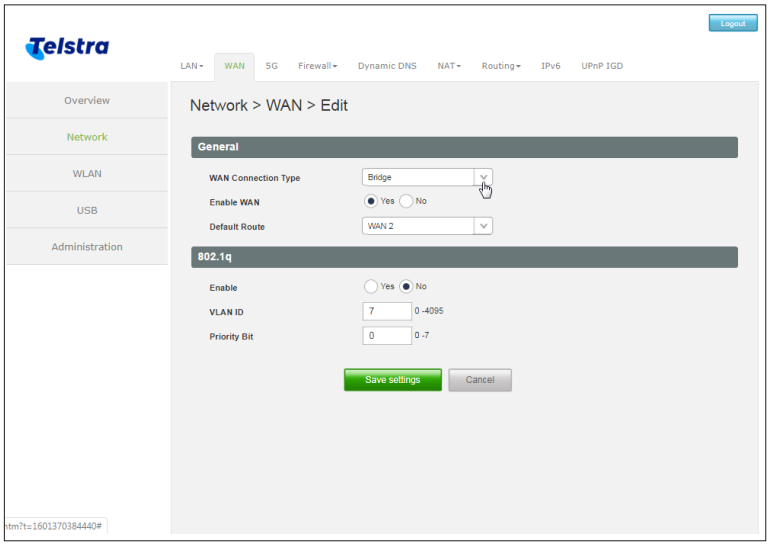


Figure 26: Bridge

Parameter	Description
802.1q	
Enable	Select to enable VLAN
VLAN ID	Specify the VLAN grouping ID for WAN port binding.
Priority Bit	Set the QoS priority value of the VLAN ID.

3.2.2.3 5G New Radio (NR)

The 5G Home Modem supports the 5G New Radio (NR) ecosystem for your mobile network.

The embedded SIM card socket is located on the rear panel. It supports push-in/push-out mechanism. It is easy to insert and to take out your SIM card by pressing the card into the slot.

Be sure to insert the SIM card into the card socket before power on the Modem.

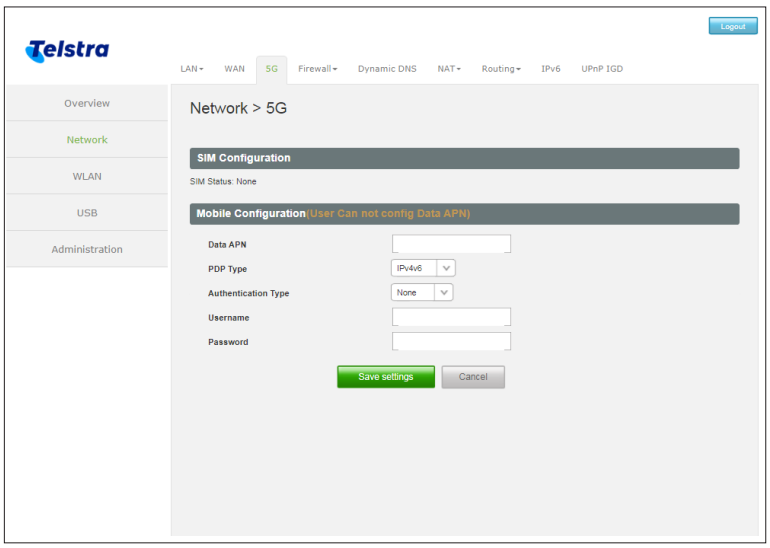


Figure 27: 5G New Radio (NR)

Parameter	Description
Mobile Configuration	
Data APN (Access Point Name)	Access Point Name, name of a gateway between 5G mobile network and Ethernet network.
PDP (Packet Data Profile) Type	Select the APN profile option as IPv4 or IPv6 from the drop-down menu.
Authentication Type	Select the security type used by ISP from the drop-down menu.
Username	Enter your user name.
Password	Enter password.

3.2.2.4 Firewall

This 5G Home Modem's firewall inspects packets at the application layer, maintains TCP and UDP session information including time-outs and the number of active sessions, and provides the ability to detect and prevent certain types of network attacks. Network attacks that deny access to a network device are called Denial-of-Service (DoS) attacks. DoS attacks are aimed at devices and networks with a connection to the Internet. Their goal is not to steal information, but to disable a device or network so users no longer have access to network resources.

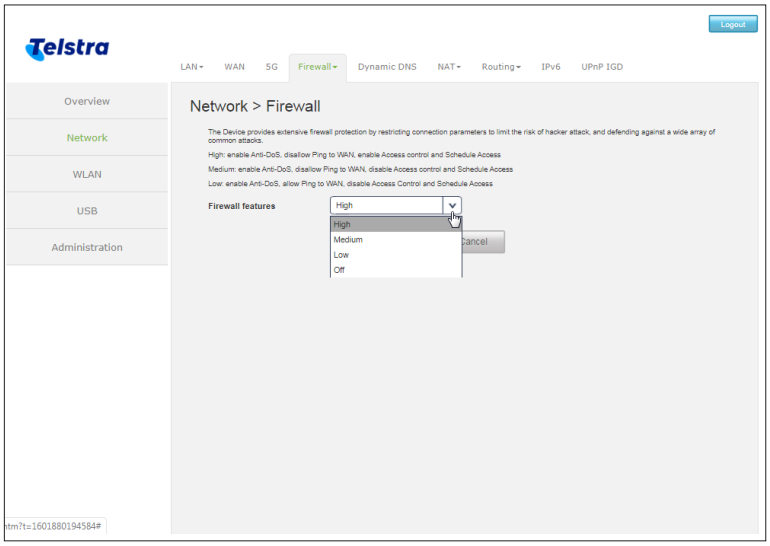


Figure 28: Firewall

The firewall function is enabled by default with medium level.

The above screen allows you to define the incoming and outgoing traffic permitted or not-permitted through the WAN interface.

Access Control

Access Control allows users to define the network traffic permitted or not-permitted through the WAN interface.

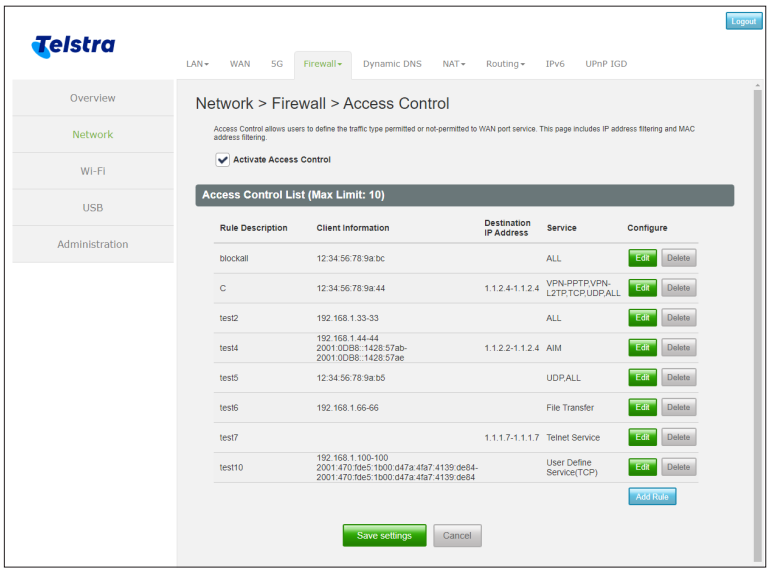


Figure 29: Access Control

To create a new access control rule:

Click Add Rule on the screen. The following screen will appear.

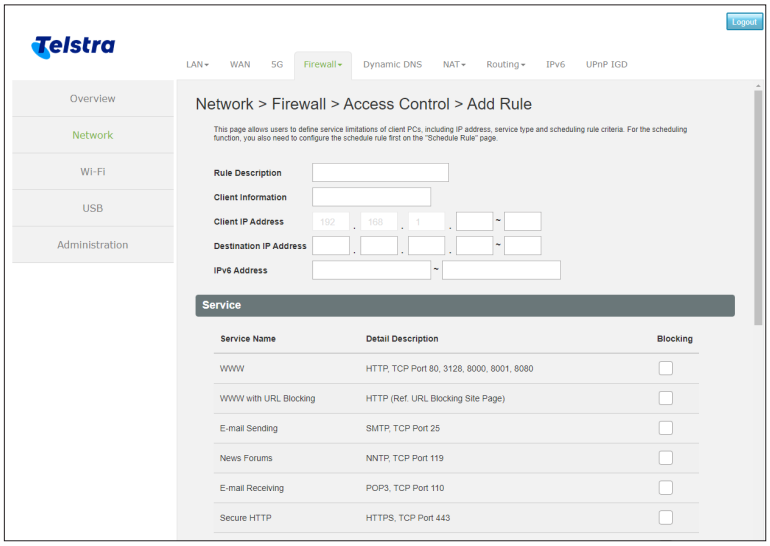


Figure 30: Access Control Rule

Define the appropriate settings for client PC services.

Click Save settings to save your settings.

Schedule Access

You may filter Internet access for local clients based on rules. Each access control rule may be activated at a scheduled time. Define the schedule on this Schedule Access screen.

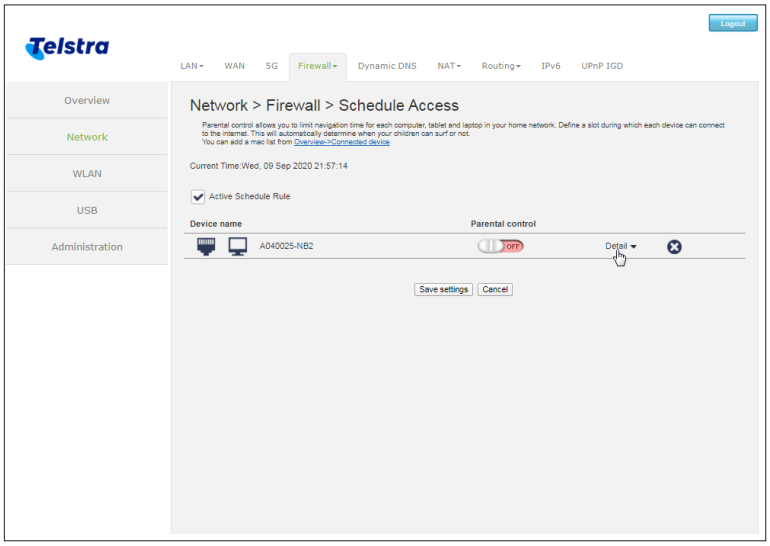


Figure 31: Schedule Access

Follow these steps to add a schedule rule:

Click the Detail icon on the Schedule Access screen.

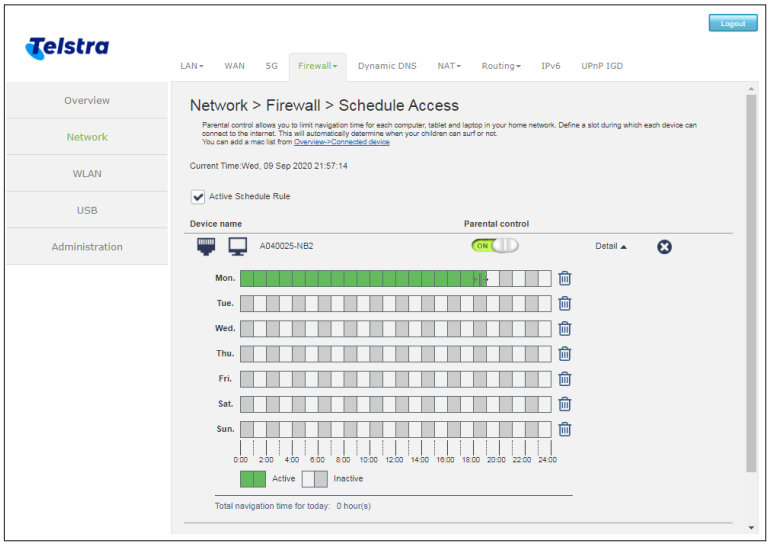


Figure 32: Schedule Access Details

Define the time settings for a schedule rule.

Click Save settings to save your settings.

URL Blocking

The Modem allows the user to block access to web sites by entering either a full URL address or just a keyword. This feature can be used to protect children from accessing violent or pornographic web sites. Up to 10 sites can be entered here.

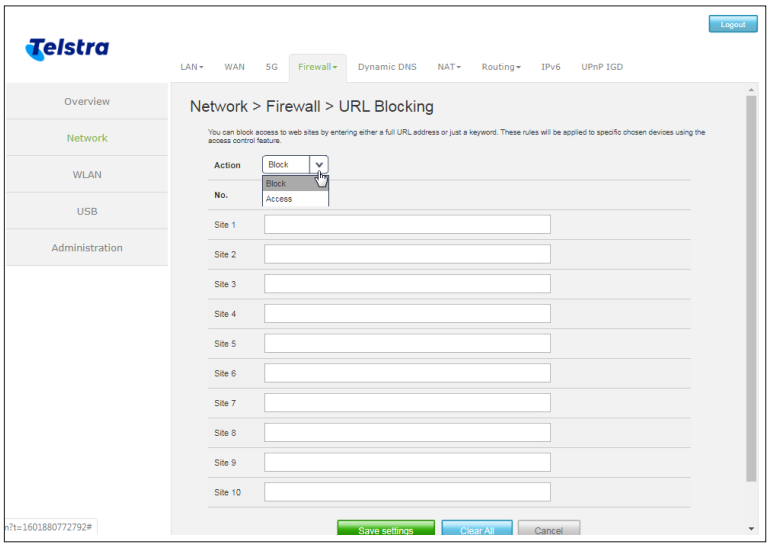


Figure 33: URL Blocking

Click Save settings to save your settings.

Click Clear All to delete all items from the table.

Intrusion Detection

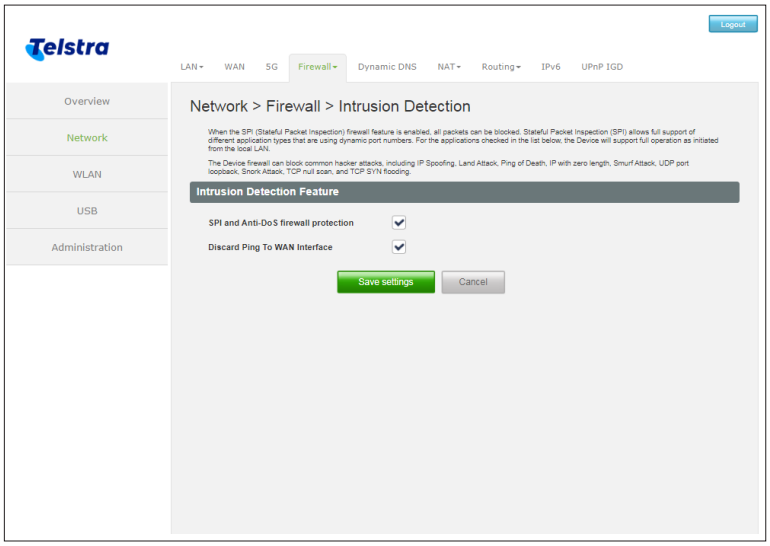

Telstra
Logout
LAN
WAN
5G
Firewall
Dynamic DNS
NAT
Routing
IPv6
UPnP IGD
Overview
Network
WLAN
USB
Administration
Network > Firewall > Intrusion Detection
When the SPI (Stateful Packet Inspection) firewall feature is enabled, all packets can be blocked. Stateful Packet Inspection (SPI) allows full support of different application types that are using dynamic port numbers. For the applications checked in the list below, the Device will support full operation as initiated from the local LAN.
The Device firewall can block common hacker attacks, including IP Spoofing, Land Attack, Ping of Death, IP with zero length, Smurf Attack, UDP port loopback, Snork Attack, TCP null scan, and TCP SYN flooding.
Intrusion Detection Feature
SPI and Anti-DoS firewall protection
Discard Ping To WAN Interface
Save settings
Cancel

Figure 34: Intrusion Detection

Intrusion Detection Feature

- SPI (Stateful Packet Inspection) and Anti-DoS firewall protection (Default: enabled): The Intrusion Detection Feature of the Modem limits access for incoming traffic at the WAN port. When the SPI feature is turned on, all incoming packets will be blocked except for those types marked in the Stateful Packet Inspection section.
- Discard Ping to WAN Interface (Default: enabled): Prevent a ping on the Modem's WAN port from being routed to the network.

DMZ

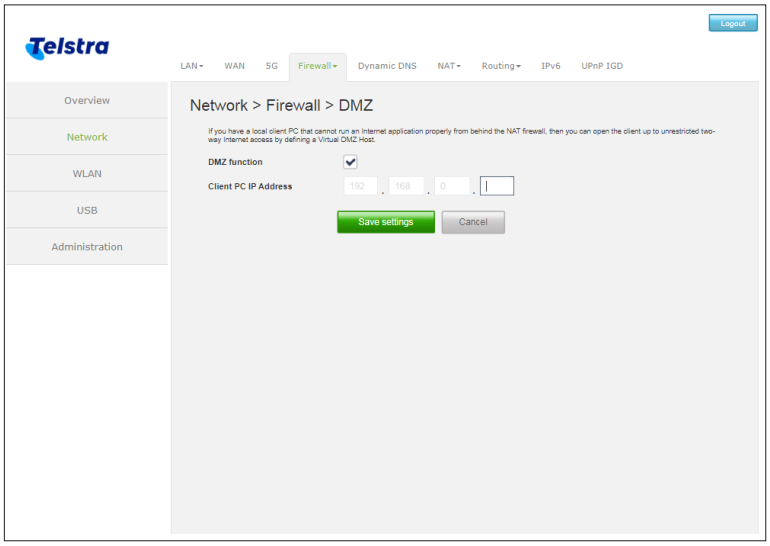


Figure 35: DMZ

DMZ service is available when you select "Ethernet WAN" from the drop-down list of Network/ WAN/WAN mode ("3.2.2.2 WAN Mode" on page 21).

If you have a client PC that cannot run an Internet application properly from behind the firewall, you can open the client up to unrestricted two-way Internet access.

- DMZ Function: select to enable or disable this function.
- Client PC IP Address: Enter IP manually Enter the IP address of a DMZ (Demilitarized Zone) host on this screen. Adding a client to the DMZ may expose your local network to a variety of security risks, so only use this option as a last resort.

3.2.2.5 Dynamic DNS

Dynamic Domain Name Service (DDNS) provides users on the Internet with a method to tie their domain name to a computer or server. Dynamic DNS allows your domain name to follow your IP address automatically by having your DNS records changed when your IP address changes.

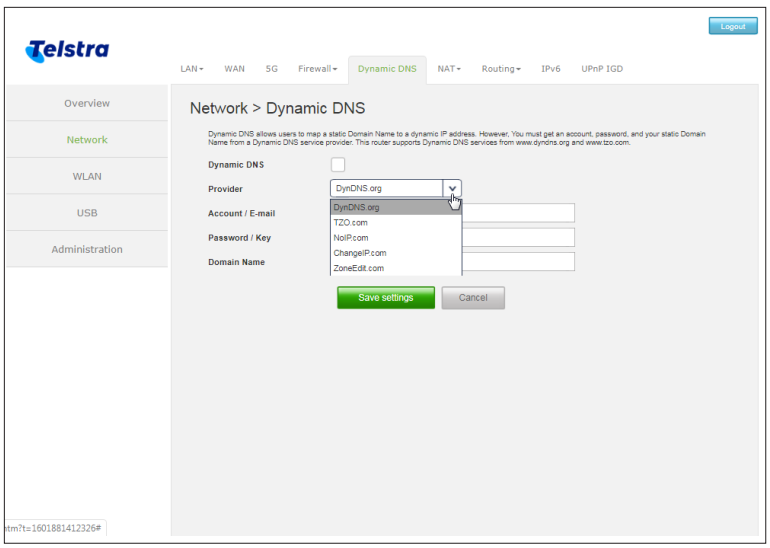


Figure 36: Dynamic DNS

With a DDNS connection you can host your own web site, email server, FTP site, and more at your own location even if you have a dynamic IP address. Enter the account information on the screen.

3.2.2.6 NAT

Network Address Translation allows multiple users to access the Internet sharing one public IP.

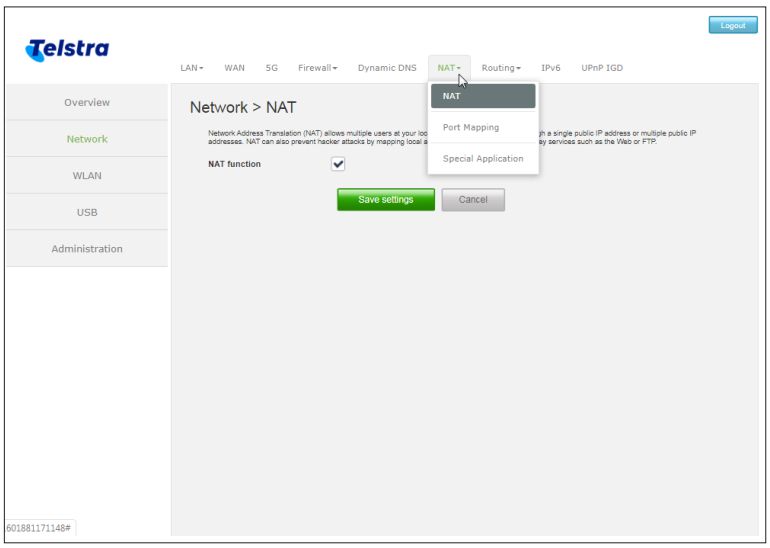


Figure 37: Network Address Translation (NAT)

Port Mapping

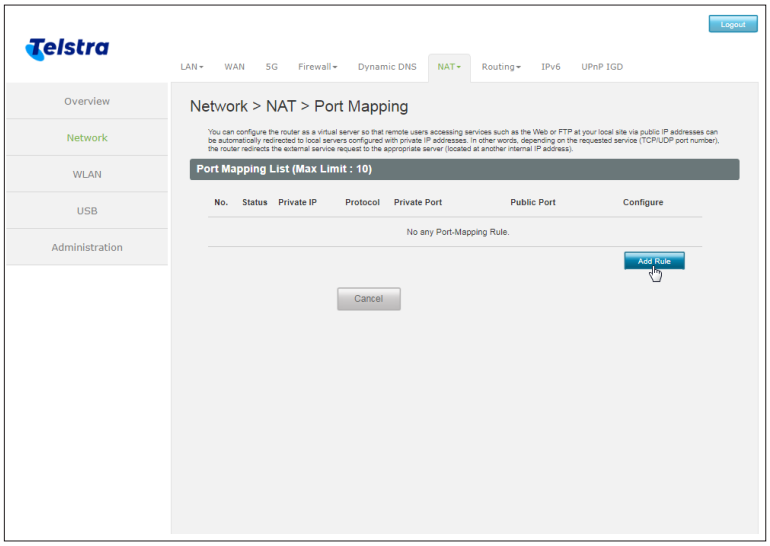


Figure 38: Port Mapping

Port Mapping application is available when you select "Ethernet WAN" from the drop-down list of Network/WAN/WAN mode ("3.2.2.2 WAN Mode" on page 21).

If you configure the Modem as a virtual server, remote users accessing services such as web or FTP at your local site via public IP addresses can be automatically redirected to local servers configured with private IP addresses.

If you set Type/Public Port to TCP/80 (HTTP or web) and the private IP/Port to 192.168.0.2/80, then all HTTP requests from outside users will be transferred to 192.168.0.2 on port 80. Therefore, by just entering the IP address provided by the ISP, Internet users can access the service they need at the local address to which you redirect them.

Click Add Rule on the screen. The following screen will appear.

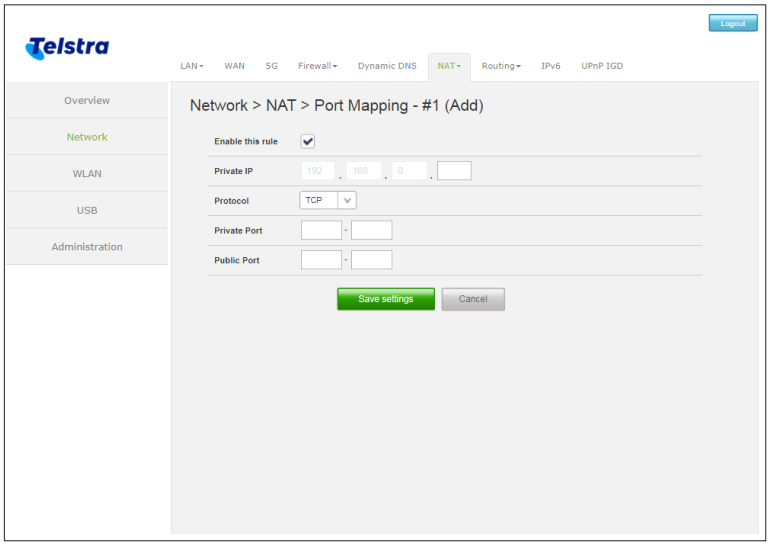


Figure 39: Port Mapping Rule

Define the appropriate settings for adding port mapping rule.

Click Save Settings to save your settings.

Special Applications

Some applications require multiple connections, such as Internet gaming, video-conferencing, and Internet telephony. These applications may not work when Network Address Translation (NAT) is enabled. If you need to run applications that require multiple connections, use these screens to specify the additional public ports to be opened for each application.

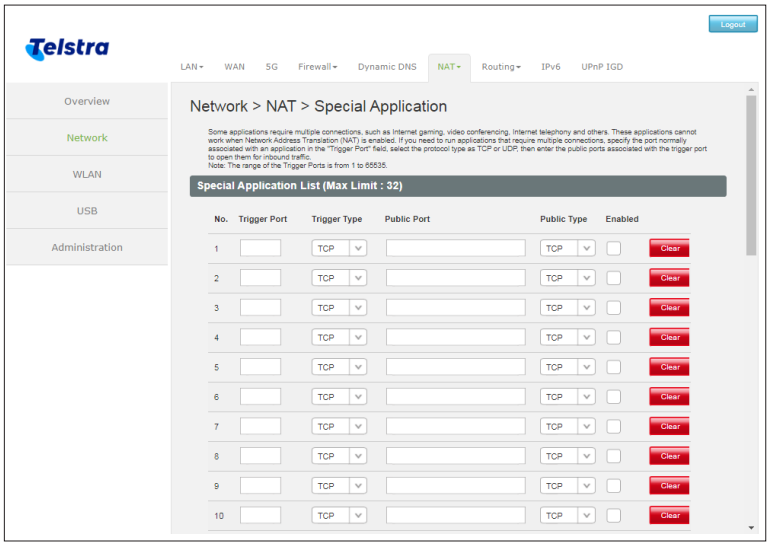


Figure 40: Special Applications

Special Applications function is available when you select "Ethernet WAN" from the drop-down list of Network/WAN/WAN mode ("3.2.2.2 WAN Mode" on page 21).

3.2.2.7 Routing

The routing function forwards data passing through the 5G Home Modem to specific IP addresses. This screen displays details for the default routing used by your Modem and any routing created using Static Routing.

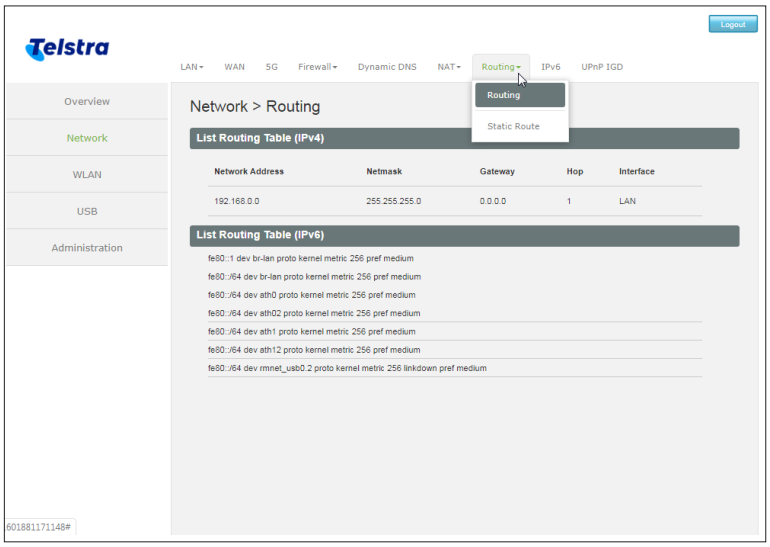


Figure 41: Routing

Static Route

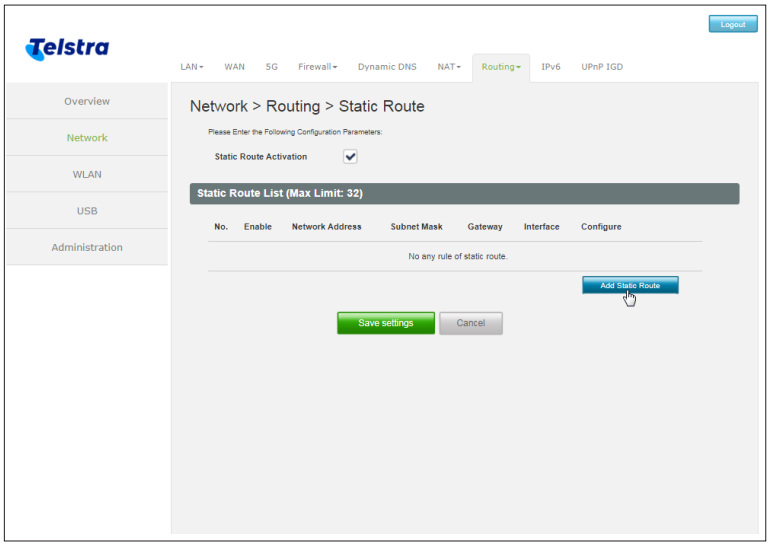


Figure 42: Static Route

Click the Add Static Route icon on the screen. The Static Route Parameter screen will appear.

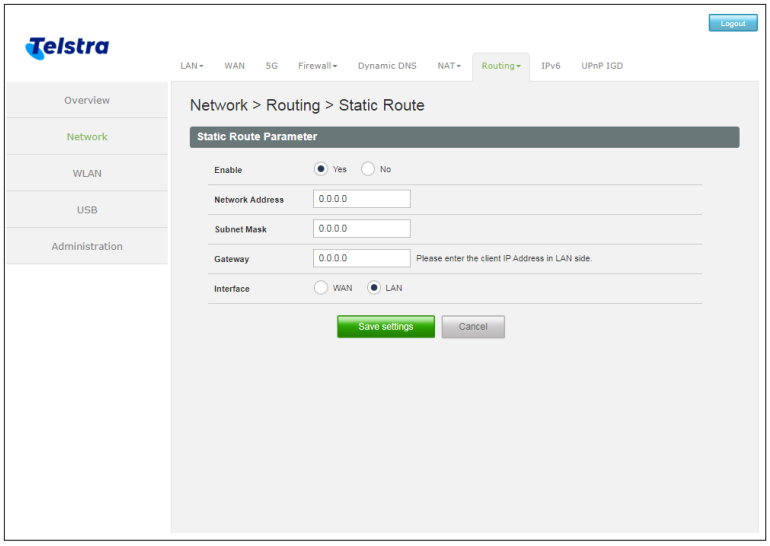


Figure 43: Static Route Parameter

Define the settings for a static route entry.

Click Save settings to add a new entry.

Parameter	Description
Enable	Select to use this function.
Network Address	This is the IP address of the final destination of data packets routed by this rule.
Subnet Mask	This is the netmask of the destination IP.
Gateway	Gateway does the actual forwarding of the packets. Enter the gateway's IP address in the field.
Interface	Select the network type.

3.2.2.8 IPv6

IPv6 is an enhanced version of IPv4 for the Internet communication protocols. IPv6 uses a 128-bit address and it contains much larger address space than IPv4.

For IPv6 WAN connections, this Modem can have a static IPv6 address or receive connection information when configured as a DHCPv6 client. In the case where the ISP assigns you a fixed address to access the Internet, the static configuration settings must be completed. In addition to the IPv6 address assigned to your Modem, the IPv6 prefix length defined by the ISP is needed.

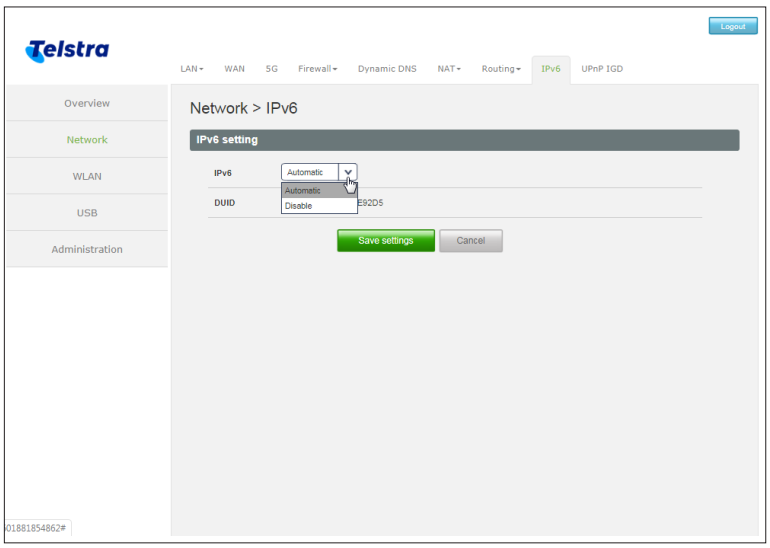
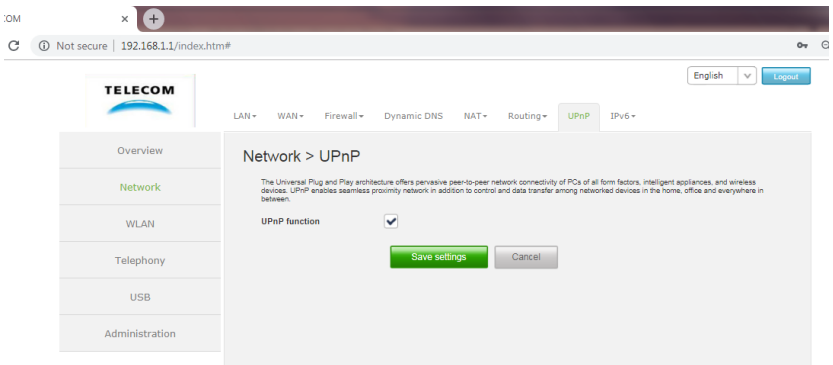


Figure 44: IPv6

Parameter	Description
IPv6	Select - Automatic to automatically get an IPv6 address for the Modem.
DUID	The DHCP Unique Identifier (DUID) is used by a client to get lease from a DHCPv6 server.

3.2.2.9 UPnP IGD (Internet Gateway Device)



The Universal Plug and Play architecture offers pervasive peer-to-peer network connectivity of PCs of all form factors, IGD (Internet Gateway Device) network address translation traversal, intelligent appliances, DLNA (Digital Living Network Alliance) media service and wireless networking environment.

UPnP enables seamless proximity network in addition to control and data transfer among networked devices in the office, home and everywhere within your network.

3.2.3 WLAN

The 5G Home Modem also operates as a wireless access point, allowing wireless computers to communicate with each other. To configure this function, you need to enable the wireless function, define the SSID and radio channel, and the security options.

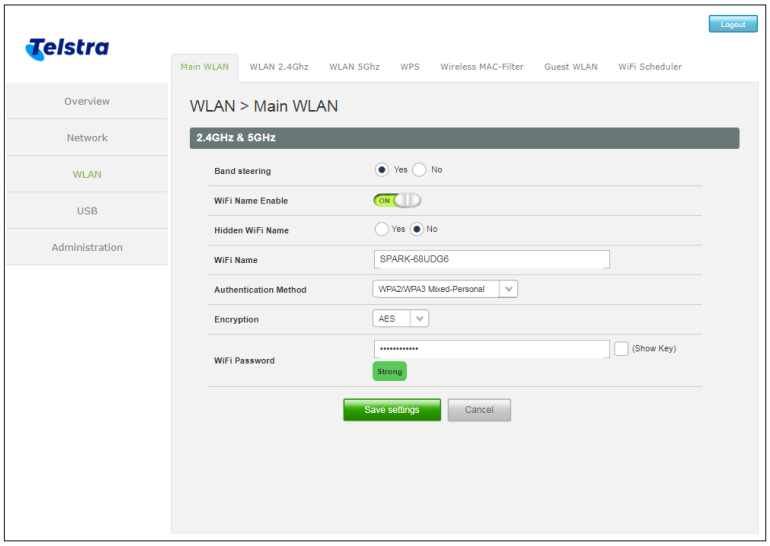


Figure 45: WLAN

Parameter	Description
Band Steering	Enabling this fuction allows to detect and steer dual-band capable wireless clients to 5GHz frequency. It leaves the 2.4GHz band available for 2.4GHz operation clients. Select Yes/No to enable/disable the wireless function.
Wi-Fi Name Enable	Select ON/OFF to enable the Wi-Fi Name for the 2.4 GHz and 5 GHz networks
Hidden Wi-Fi Name	Select Yes/No to hide/show the Wi-Fi Name.
Wi-Fi Name (Service Set ID, SSID)	Give your wireless network a Wi-Fi name to distinguish it from other networks in your neighbourhood. Specify the Wi-Fi Name to be used by the Modem.
Authentication Method	The Modem supports WPA (Wi-Fi Protected Access), WPA2 and WPA3 security mechanisms.
Encryption	Select the encryption key type from the drop-down list.
Wi-Fi Password	Enter the network security key here. Passwords can contain from 8~63 alphanumeric characters (A-Z, 0-9) and are case sensitive.
Show Key	Select to conceal the security password.

3.2.3.1 WLAN 2.4 Ghz

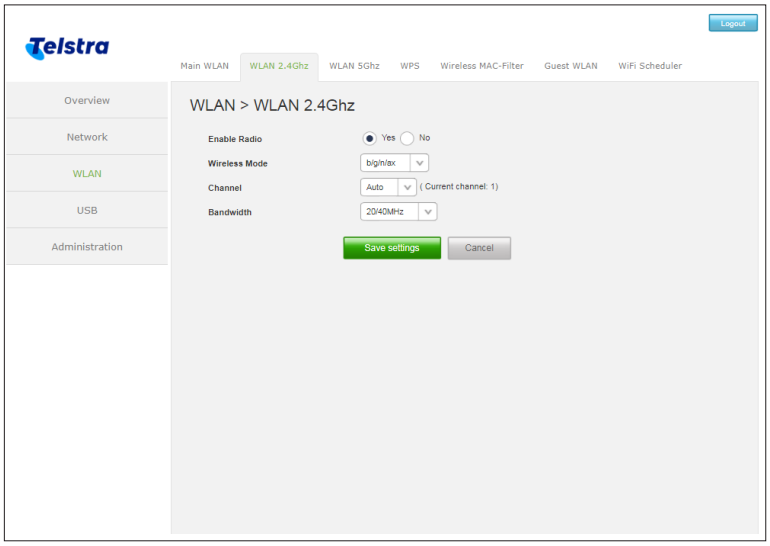


Figure 46: WLAN 2.4 Ghz

Parameter	Description
Enable Radio	Select to enable or disable the 2.4 Ghz wireless function.
Wireless Mode	This device supports 11ac, 11a, 11n, 11g and 11b wireless networks. Make your selection depending on the type of wireless network that you have. It is recommended using “b/g/n” for 2.4 GHz and “a/n/ac/ax” for 5 GHz to provide compatibility with 11ax, 11ac, 11a, 11n, 11g and 11b wireless clients.
Channel	The radio channel used by the 5G Home Modem and its clients to communicate with each other. This channel must be the same on the Modem and all of its wireless clients. The Modem will automatically assign itself a radio channel, or you may select one manually.
Bandwidth	Set the bandwidth to 20/40 MHz.

3.2.3.2 WLAN 5 Ghz

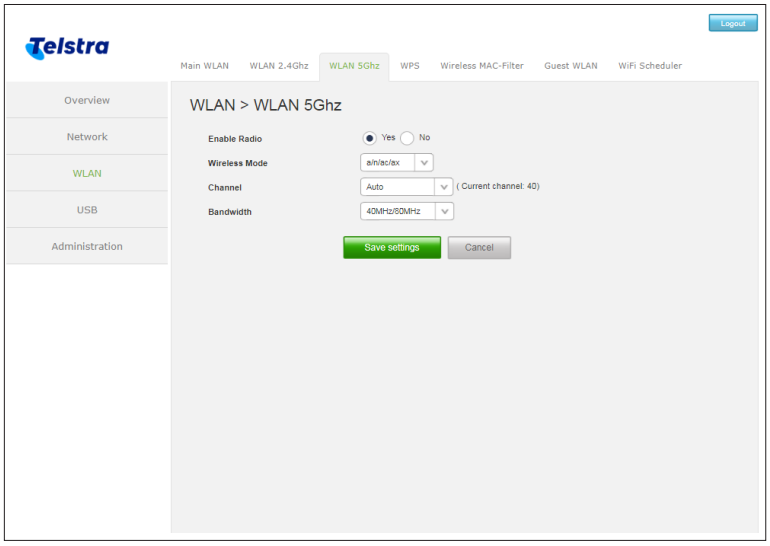


Figure 47: WLAN 5 Ghz

Parameter	Description
Enable Radio	Select to enable or disable the 5 Ghz wireless function.
Wireless Mode	This device supports 11ax, 11ac, 11a, 11n, 11g and 11b wireless networks. Make your selection depending on the type of wireless network that you have. It is recommended using “b/g/n” for 2.4 GHz and “a/n/ac/ax” for 5 GHz to provide compatibility with 11ax, 11ac, 11a, 11n, 11g and 11b wireless clients.
Channel	The radio channel used by the 5G Home Modem and its clients to communicate with each other. This channel must be the same on the Modem and all of its wireless clients. The Modem will automatically assign itself a radio channel, or you may select one manually.
Bandwidth	Set the bandwidth to 40/80 MHz.

3.2.3.3 WPS (Wi-Fi Protected Setup)

The 5G Home Modem was implemented with the ease-of-use Wi-Fi Protected Setup (WPS). WPS makes a secure wireless network much easier to achieve by using the Push Button Control (PBC).

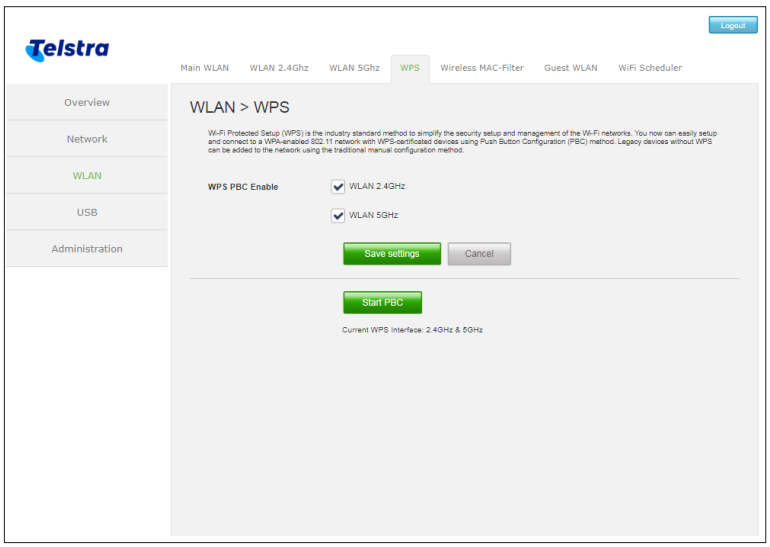


Figure 48: WPS

Parameter	Description
WPS PBC Enable	Select to enable or disable WPS features for 2.4 or 5GHz frequency band.
Start PBC: Push Button Configuration (PBC) method	To achieve successful WPS connection, you can use one of the following ways: Push and hold the WPS button located on the side panel of this Modem for 4 seconds. or Click the Start PBC button on this screen. Now click the WPS button on the client device which you are connecting. Make sure the client device is powered on. **This connection procedure must be done within 2 minutes after pressing the WPS button on the Modem.**

3.2.3.4 Wireless MAC-Filter

Wireless MAC-Filter allows users to define the outgoing traffic permitted or not-permitted via the wireless link based on MAC address. Up to 32 entries can be entered in this table.

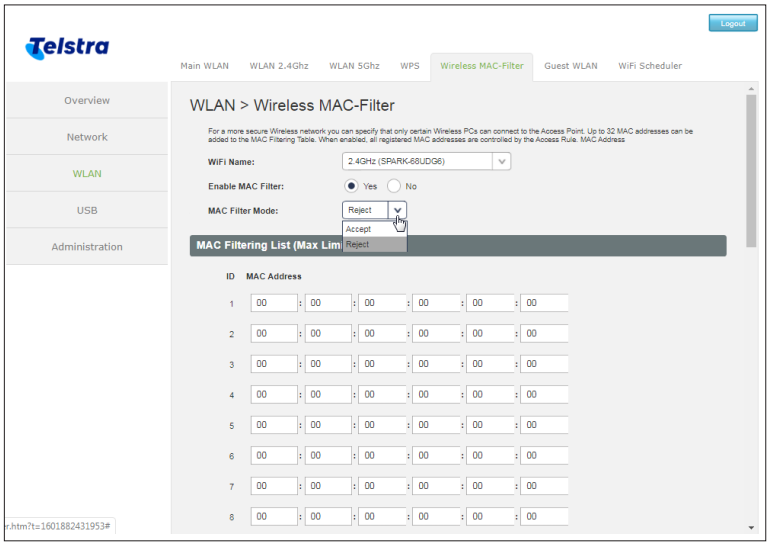


Figure 49: Wireless MAC-Filter

Parameter	Description
Wi-Fi Name	Select the Wi-Fi Name profile of your Wi-Fi network.
Enable MAC Filtering	Select Yes/No to enable/disable the wireless access control function.
MAC Filtering Mode	Select to Accept/Reject access for the registered MAC addresses. Selecting Accept means only MAC addresses registered here will be able to connect to the 5G Home Modem. Selecting Reject means only the MAC addresses registered here will be denied access to the Modem.
Add currently associated MAC stations	Click this button to quickly copy the entry to the MAC Filtering table.

3.2.3.5 Guest WLAN

The Guest WLAN provides Internet connectivity to your guests but restricts guest users' access to your local network.

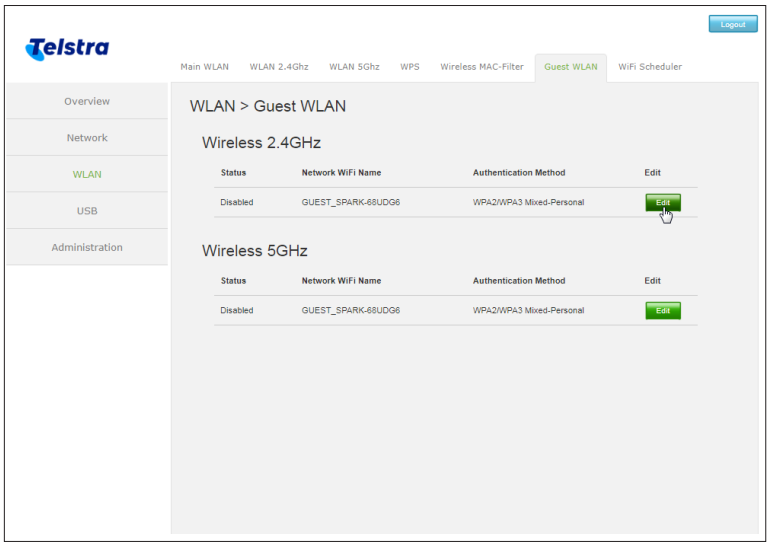


Figure 50: Guest WLAN

Click the Edit icon on the screen. The Guest WLAN parameter screen will appear.

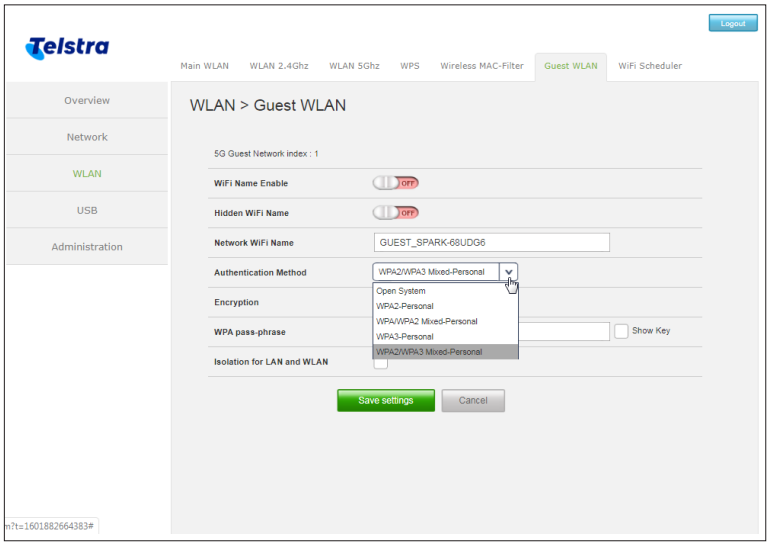


Figure 51: Guest WLAN Parameter

Define the settings for a guest WLAN entry.

Click Save settings to add a new entry.

Parameter	Description
Wi-Fi Name Enable	Select ON/OFF to enable/disable the Wi-Fi Name for the 2.4 GHz and 5 GHz networks
Hidden Wi-Fi Name	Select Yes/No to hide/show the Wi-Fi Name.
Network Wi-Fi Name (Service Set ID, SSID)	Give your wireless network a Wi-Fi name to distinguish it from other networks in your neighbourhood. Specify the Wi-Fi Name to be used by the Modem.
Authentication Method	The Modem supports WPA(Wi-Fi Protected Access), WPA2 and WPA3 security mechanisms.
Encryption	Select the encryption key type from the drop-down list.
WPA passphrase	Enter the network security key here. Passwords can contain from 8~63 alphanumeric characters (A-Z, 0-9) and are case sensitive.
Isolation for LAN and WLAN	Enabling the client isolation prevents wireless clients from communicating with one another.

3.2.3.6 WiFi Scheduler

You may filter Internet access for Wi-Fi clients based on rules. Each access control rule may be activated at a scheduled time. Define the schedule on this WiFi Scheduler screen.

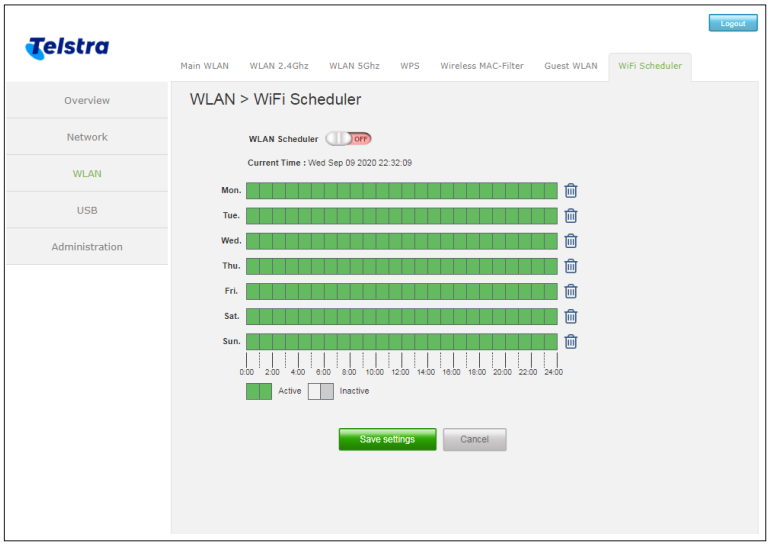


Figure 52: WiFi Scheduler

Follow these steps to add a schedule rule:

- Click the button to ON on the WiFi Scheduler screen.
- Define the time settings for a schedule rule.
- Click Save settings to save your settings.

3.2.4 USB

3.2.4.1 USB Mass Storage

The 5G Home Modem supports the USB host controller function. It allows you to access to a USB storage device or to share your printer over the network.

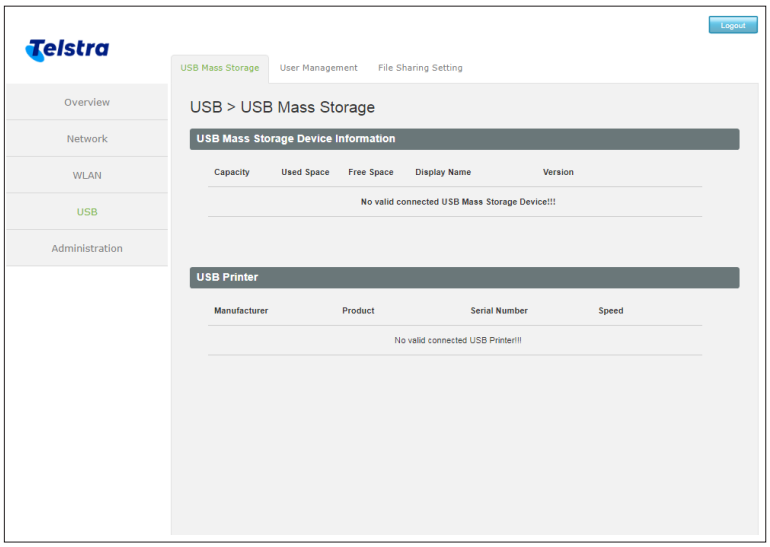


Figure 53: USB Mass Storage

The following USB services are supported:

- USB Mass Storage
- File Sharing
- Printer Server

Be sure the USB device is powered on and firmly connected to the Modem.

3.2.4.2 User Management

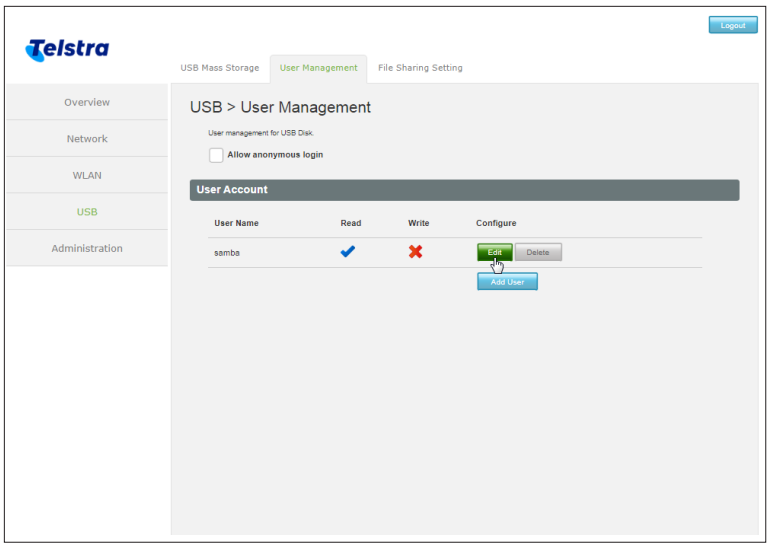


Figure 54: User Management

To add a new user:

Click the Add User icon on the screen. The User Information screen will appear.

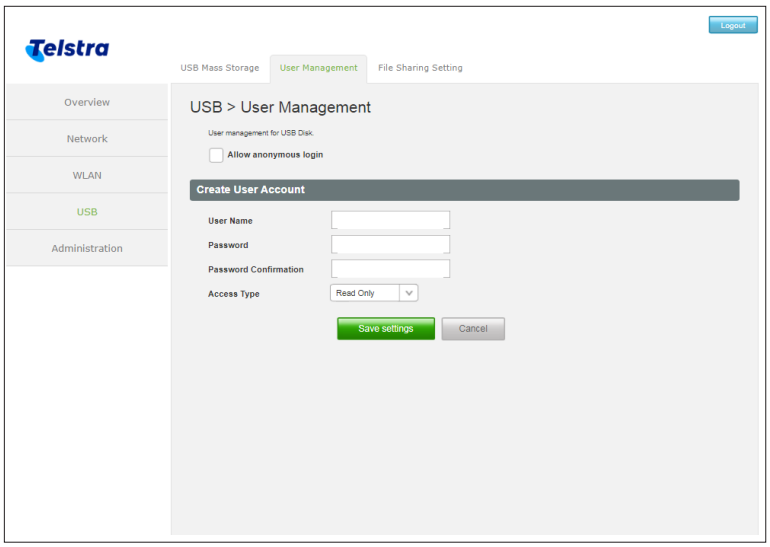


Figure 55: Creating User Account

Define the appropriate settings for access privilege.

Click Save settings to save your settings.

3.2.4.3 File Sharing Setting (FTP)

The 5G Home Modem supports file server service. It allows you to connect a USB storage device via the provided USB port of this Modem. The Samba service provides file sharing between the network computers running Microsoft Windows and Unix (Unix-like system, e.g. Linux) OS.

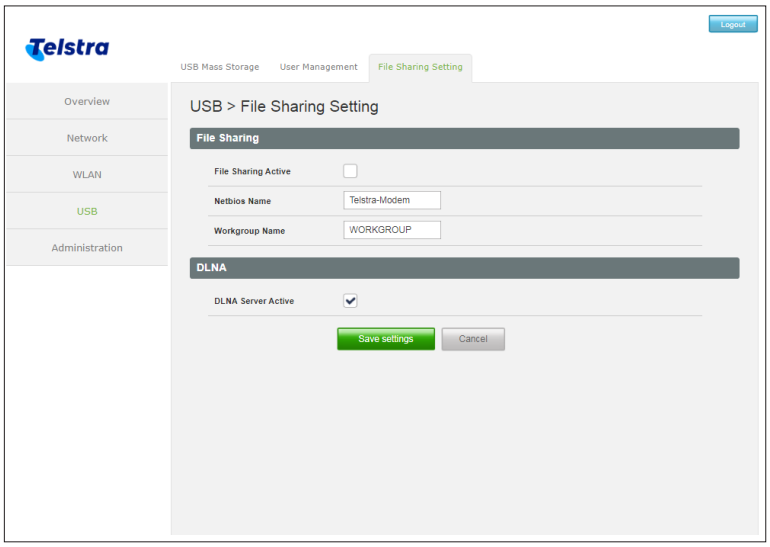


Figure 56: File Sharing Setting

Parameter	Description
File Sharing	
File Sharing Active	Click on the checkbox to use file sharing system.
Netbios Name	Enter a netbios name for access to the file service shared on your Microsoft Windows network.
Workgroup Name	Enter a workgroup name for access to the file service shared on your Unix network.
DLNA	DLNA (Digital Living Network Alliance) uses Universal Plug and Play (UPnP) mechanisms for accessing digital media between multimedia devices over a network. Select DLNA Server Active to use this function.

3.2.5 Administration

The 5G Home Modem supports the following functions described in the table below:

Menu	Description
Password Settings	Sets the user name and password for administrator access.
Time Settings	Sets the local time zone and NTP (Network Time Protocol) server.
Remote Management	Enables/disables remote management of the 5G Home Modem.
Backup Configuration of Modem	Allows you to save the Modem's configuration to a file.
Restore Configuration of Modem	This function is used to restore the previously saved backup configuration file.
Restore to Factory Defaults	Resets the Modem back to the original default settings.
Reboot	Reset the 5G Home Modem.

3.2.5.1 Password Settings

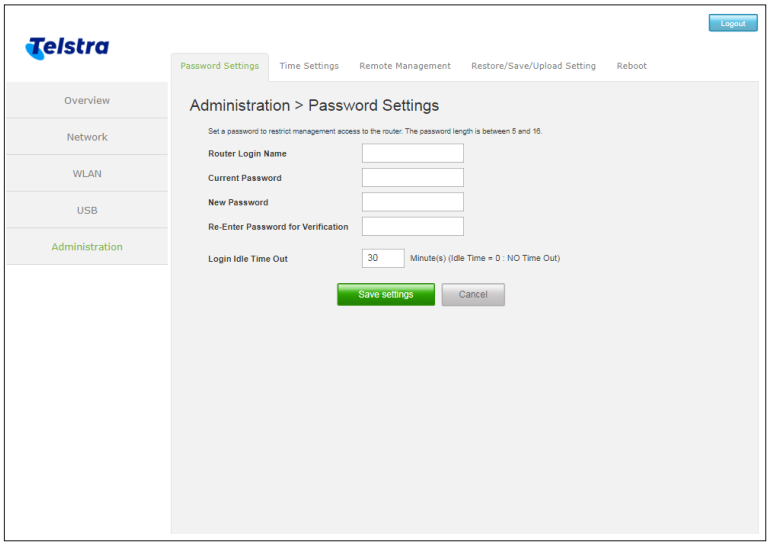


Figure 57: Password Settings

Use this screen to change the user name and password for accessing the management interface. User name and password can contain from 3~12 alphanumeric characters and are case sensitive.

If you lost the password, or you cannot gain access to the user interface, press the reset button on the rear panel, holding it down for at least 10 seconds to restore the factory defaults.

The default login settings:

- User name: admin
- Password: Telstra

Login Idle Time Out - Enter a maximum Idle timeout (in minutes) to define a maximum period of time for which the login session is maintained during inactivity. If the connection is inactive for longer than the maximum idle time, it will perform system logout, and you have to log in again to access the management interface.

3.2.5.2 Time Settings

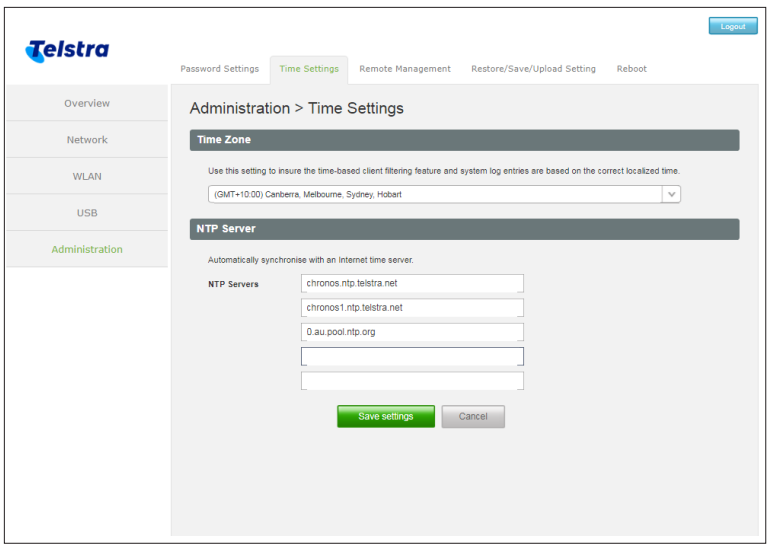


Figure 58: Time Settings

Parameter	Description
Time Zone	Select your local time zone from the drop down list. This information is used for log entries and client filtering. For accurate timing of log entries and system events, you need to set the time zone. Select your time zone from the drop-down list.
NTP Server	If you want to automatically synchronize the Modem with a public time server, enter the server name (server IP) of the Network Time Protocol (NTP). Please refer to http://support.ntp.org/bin/view/Servers/StratumOneTimeServers for the host name detail information.

3.2.5.3 Remote Management

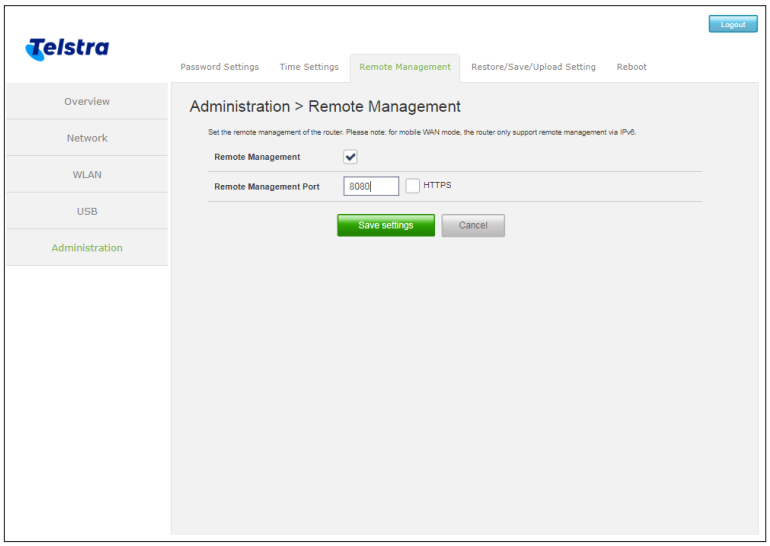


Figure 59: Remote Management

By default, management access is only available to users on your local area network.

- Click the checkboxes to enable/disable the remote access.
- For remote management via WAN IP address, you need to connect using port 8080. Simply enter the WAN IP address followed by ":8080".

3.2.5.4 Restore/Save/Upload Setting

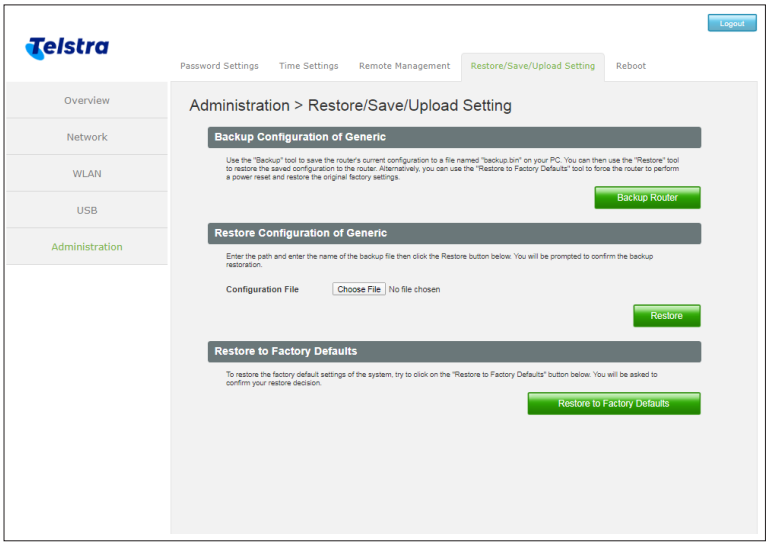


Figure 60: Restore/Save/Upload Setting

- Backup Configuration of Router: this allows you to save the Modem's configuration to a file. To backup the configuration file, just click the Backup Router button on the screen.
- Restore Configuration of Router: this function is used to restore the previously saved backup configuration file. To restore the configuration file: click Choose File to locate the previously saved file, then press the Restore button.
- Restore to Factory Defaults: this resets the Modem back to the original default settings. Click the Restore to Factory Defaults button to restore the default factory settings.

✍ **Note that all of the user configurations and settings will be lost.**

3.2.5.5 Reboot

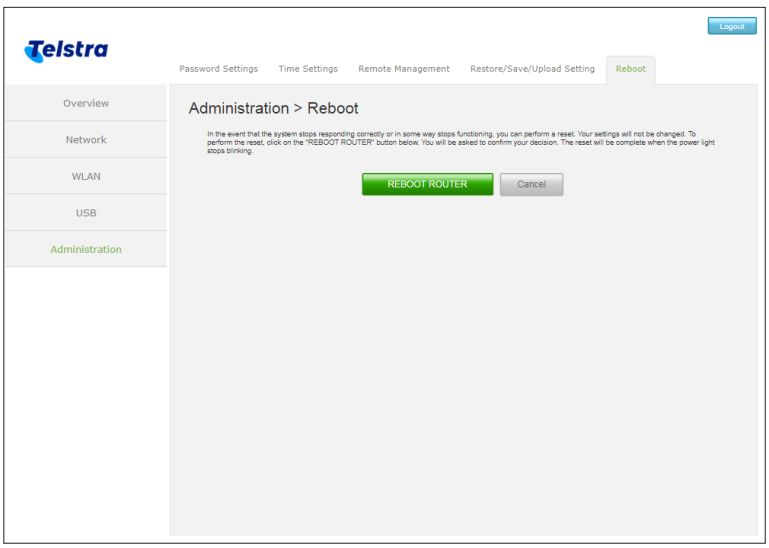


Figure 61: Reboot

Click REBOOT ROUTER to reboot the 5G Home Modem, if the device becomes unresponsive. If you perform a reset from this screen, the configurations will not be changed back to the factory default settings.

The reboot will be completed when the power LED stops blinking.